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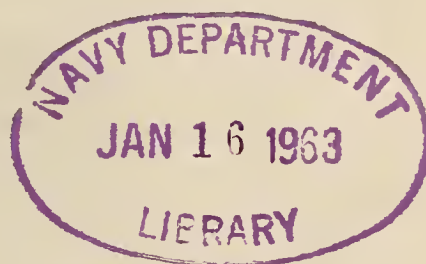
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III





THE BATTLESHIP QUESTION

The December, 1929, number of the O. N. I. BULLETIN contained some notes on the question of reducing the size and number of battleships. The following notes on the same subject are taken from recent articles appearing in the British press:

SMALLER NAVIES

By Admiral Sir Herbert Richmond, R. N.

(NOTE.—The following article on *Smaller Navies*, by Admiral Richmond, R. N., appeared in the *London Times* of November 21 and 22, 1929. Admiral Richmond was president of the Royal Naval War College in 1920–1923 and commandant of the Imperial Defense College, 1927–28.—He is the author of several books, one of which is *National Policy and Naval Strength*.—Ed.)

PART I. A STANDARD FOR ALL—THE STRENGTH OF THE WEAKEST

A bare two months remain before the sitting of the Five-Power Conference, which, if successful, will supply the preparatory disarmament commission with a material contribution toward naval disarmament. The issues are of the very first importance. They affect the relations of all the maritime powers and the spending of many millions of money on the part of them all. That the work shall be well and truly done can be the only wish of the peoples of the several countries. But that it will be well and truly done is highly improbable unless the problems involved are understood and are treated in a scientific manner.

It is no exaggeration to say that the conferences hitherto held have been governed by expediency rather than by principles. The aim has been to discover some happy compromise, and that compromise has been based upon mere mathematical calculations, balancing the supposed interests of the various powers. Is it not now time to take principles rather than expediency as our guide? To substitute for arbitrary decisions based upon tonnages and ships, proportions of tonnage either of navies or of "categories" of ships, calibers of guns, and such like matters, decisions based upon some fundamental principles of policy and strategy?

The nations of the world desire to live in peace, and to that end have engaged themselves in certain pacts and agreements which, if they operate as it is hoped they will, if good will and a determination to solve international disputes by means other than that of armed or other force prevail, will avert that use of force which we

call war. It would, however, be idle to refuse to recognize that in spite of these agreements there remains enough of the original Adam in the minds of men to render them distrustful, and disinclined to confide those interests which they consider vital to their national life or prosperity to agreements which they fear may fail to give them protection in practice. Possibly this suspicion is not justified; but that is beside the question. What we have to deal with are facts as they are, not as they should be. The practical result of this, perhaps unconscious, distrust is that each and every nation, with, I believe, the sole exception of Denmark, takes out what amounts to an insurance policy for its security in the form of armaments.

WAYS OF SURRENDER

There are two ways by which a country may be forced to surrender to an enemy. Pressure may be brought upon it by invasion of its territory, or some of its territory, or by cutting off that external traffic by means of which it furnishes itself with the necessities of its national life. The part which a navy has to perform in averting these dangers is confined to attacks by land and sea. It has to prevent an enemy from bringing pressure upon its people by invading its territory by sea and to prevent its external commerce from being arrested or circumscribed. It does not perform these functions single handed and it has reciprocal functions. Precisely as it aims at preventing hostile armies from crossing the sea, it is required to enable its own armies to cross the sea for the defense of its oversea territories, or forces from those oversea territories to assist in each other's defense; but this is, plainly, merely one aspect of defense against invasion. It has further to hamper the operations of the enemy by preventing his people from receiving those goods or materials needed either for military purposes or for maintaining the national effort in war. These efforts may be summed up in two categories. A navy has to control the communications of the enemy and prevent the enemy from controlling its own.

The interests of peoples not themselves engaged in war call for defense. Belligerents affect others than themselves, and the commerce of neutrals suffers injury. Certain rights of both belligerents and neutrals have been recognized, and their principles expressed in that growth of thought, custom, and usage called international law. That law, like others, depends for its ultimate sanction upon force. Washington, in his last message in 1796, said that respect for a neutral flag in war required naval force, the possession of which "may even prevent the necessity of going to war by discouraging belligerent powers from committing such violations of

the rights of the neutral party" as might leave no option. The sole remedy in the neutral's hands lies in some form of coercion.

Coercion may take several forms. It may be by means of the economic weapon, as in Jefferson's act, or those threats of economic retaliation used by more than one power in the late war; or in the actual use of force either in direct individual defense, as in the armed neutralities, or rendering direct assistance to the enemy by joining him, as, for all practical purposes, was done in 1812. The strength required effectively to support a neutral's claims, if force be decided upon, has been clearly indicated by Admiral Mahan:

A valuable lesson of the war of 1812 is just this: That a comparatively small force—a few frigates and sloops—placed as the United States Navy then was, can exercise an influence utterly disproportionate to its own strength.

Elsewhere he sums this up pithily: "A pound is but a pound; but when the balance is nearly equal a pound may turn the scale." A small force which would have turned the scale at that time would, he remarks, "have made persistence on the part of Britain to pursue her policy impolitic to the verge of madness." There is, therefore, no need for strength equal to that of the belligerent in order that a neutral shall be capable of defense of its rights. If it possesses sufficient to render it secure against the external dangers of invasion or interruption of its commercial or prospective military communications, it will ipso facto possess sufficient to ensure attention to its just wishes. In estimating the naval strength a nation requires, it is enough to provide for this external security: The lesser need is comprised within the greater.

Nations which are most liable to injury by sea are those to which defense at sea is of the greatest moment; and, in equity, are those which are (if the word may be used) entitled to furnish themselves with the means necessary to security on a higher scale than others to whom defense at sea is not so vital an issue.

All relativity implies comparison with some fixed point. In finance we have the gold standard. What is the fixed point, the point of departure, the index, from which the various naval strengths of the greater and lesser maritime powers are reckoned? Either the strength of the weaker power depends upon that of the stronger or the strength of the stronger upon that of the weaker. Is it not essential in considering this matter that we should establish clearly which of these principles is correct?

THE FIXED POINT

In my opinion the true criterion of international naval strength is the strength of the weaker naval powers. It is that which,

whether experience or logic be our guide, dictates the strength of the stronger. If this be so, the starting point in any attempt to obtain a scientific reduction of naval strength, a reduction which shall satisfy the claims both of economy and security, is for the powers least exposed to injury by sea to fix the strength which the needs and possibilities of their security demand, and for the powers most exposed to adjust the needs of their defense accordingly. This, I venture to say, is what has happened in the past, except at such times as some country's policy has aimed at expansion in some form; a policy not of holding that which it possessed, but of taking something from others. It was the rise, for example, in the naval strength of Germany beyond that needed for her then security, which forced the rise in the strength of the British Navy. If Germany's security depended upon her expansion, the rise in her strength was natural.

The "lesser" (I use the word in no invidious sense) naval powers are those continental or semicontinental powers which, being under a necessity for security against their neighbors on land, possess considerable land forces. These land forces render them immune from invasion by sea by a sea power. Their external communications are not wholly by sea; one-half, approximately, proceed by land. Liable as they are to be distressed by interruption of their traffic by sea, they are not liable to pressure in that form which will enforce the surrender by them of such right or territory as is of such importance, and so vital to both parties, as to impel them to resort to war. It is probably not generally realized that at the time when the sea was practically closed to Napoleonic France, her vital exports actually increased. Her continental export trade expanded under the pressure of necessity and by the genius of her peoples to a previously unheard of height. This is not to say that the burden imposed by the loss of the use of the sea was not serious, or that ultimately it was not the means to the eventual end. But it was not, nor could it be, fatal. France had the neutral markets of Europe at her disposal, and, if Napoleon, stricken by an almost malign madness, had not committed the colossal blunders of the war with Spain and the invasion of Russia, she could well have withstood the strain.

The criterion, therefore, that we seek is to be discovered in the naval strength of the lesser naval powers. If they increase their naval strength, the needs of defense on the part of the greater are increased, as in the rivalry of Germany and Britain; whereas an increase of the forces of the greater does not call for a similar increase on the part of the lesser.

Past history confirms this. The strength of Britain in the past was dictated by the strength at sea of what were called the land powers—the Bourbon Alliance. The political relations of France

and Spain indicated the probability, invariably translated by war sooner or later into a fact, of having them arrayed against her; and her strength was adjusted accordingly for her security. In the nineteenth century it was the same. The strength of the British Fleet was determined by the strength of those two powers with whom our relations were less cordial than we should have liked; and the possibility that we might find them allied against us in an emergency gave us the measure of the strength we needed for our security. The very words of the formula "Two-power standard" indicate that our strength was thus measured by that of others. It was not a mere lust of power that impelled our governments to increase the navy. It was the call for security of our interests.

CONCLUSIONS

From all these considerations the following conclusions may be drawn: That the quantity of force which individual nations need is dictated by their liability to injury from invasion by sea or investment. That the greatest naval forces are therefore required by those nations whose vital interests are most exposed to this twofold injury by sea. That the size of the forces they need is determined in the first place by the geographical conditions and the extent of those interests, and in the second by the strength of the forces by which they may be attacked. That the naval strength of the lesser maritime continental or military states is the determinant of the quantity of strength needed by the more maritime states. That there is no practical method of assigning by means of formulæ of any kind a set of values which can with any degree of accuracy represent the needs of the several states; they must be left to be determined by each according to its own estimate of its need of security at sea. That, finally, when those powers whose national security is mainly a matter of military force on land shall have decided the amount and nature of naval force they require, those whose security is mainly a matter of naval force will possess the means of estimating the quantity of that force they require. The smaller the amount needed by the military powers, the smaller will be that which the naval powers need in their defense.

PART II. THE CAPITAL SHIP

We have seen in the previous article that the ultimate object of a navy is to control communications. In order to do this the ships of which it is composed must be large enough to stop vessels carrying goods or persons whose movements it is required to prevent. These vessels are invariably merchant vessels. The ships which carried Japanese troops to Corea, Italian troops to Libya, British

troops to the Peninsula, powder to the North American colonists, cotton from, and munitions to, the Confederate States, rubber, cotton, copper, and other goods to the central powers—all were merchant ships. The men-of-war must therefore, in any case, be sufficiently powerful and of a size which renders them capable of undertaking the operations necessary to arrest such merchant ships.

The merchant ships, however, are protected, directly or indirectly, by fighting ships, and it is the fighting ships of an enemy which, reciprocally, stop the passage of one's own merchant ships similarly engaged. Although many efforts have been made, either for lack of an alternative or as the result of a theory like that of Admiral Aube, to bring about a stoppage of an enemy's communications by direct action against the merchant ships concerned—of which the latest example was the submarine campaign—they have invariably failed when proper measures, in accordance with a sound doctrine of war, have been employed against them. The truth that in war nothing is to be achieved without overcoming the armed force of an enemy stands rooted in the rock.

But this truth does not furnish us with an answer to the question, What is the minimum size of a man-of-war? If we say that, as her function is to overcome the armed force of the enemy, she must be large enough to fight, we are left in the air, for the size will obviously depend upon the size of that enemy. We are afforded no absolute criterion, on standard of measurement. We can, as we have done, say that a battleship shall not exceed 35,000 tons, a cruiser 10,000, and so forth. But these figures are purely arbitrary. The object of any ship is to go where she is required to go, to remain there as long as she is required to remain, and to do that which she is required to do. That which she is required to do is to defeat a similar ship, singly or in bodies, similarity being assumed as the result of any agreement. This last may be done by torpedo boats of a few hundred tons, if the opponents are of that size, as fully as by battleships of 40,000 tons. On the African lakes in the late war, for instance, a motor boat was a capital ship, and established command and control.

EQUAL WEAPONS

It is indeed palpable that, when the ships on each side are of the same size, what that size is does not matter. The decision does not depend upon whether the ships of A and B are armed with 16-inch or 6-inch guns, but upon which fleet is superior to the other, superiority being a question of a combination of command, courage, discipline, design of ship, or numbers. If the main fleets at Jutland had been composed on each side of vessels no larger than destroyers

armed with 4-inch guns, the opportunity and possibility of a decisive action would have been as great as with fleets of ships of 27,000 tons armed with guns of caliber from 11-inch to 15-inch.

There is, however, another factor. To-day and to-morrow the fighting ship has to encounter not only her like but other and unlike forms of craft and instruments of offense, the torpedo craft, the submarine, and the aircraft, and the greatly increased size of the ship is attributed to the need these impose for protection against their weapons. Thicker decks, stronger construction, are said to be needed. This inference that security is to be obtained only by increase of size takes no cognizance of the experience of small vessels during the late war, whose immunity was greater than that of any other type. There are means of obtaining security besides mere passive protection and size. Freedom of action, speed, power of maneuver, reduction in size, these are all elements which reduce the chances of being hit; which is as effective a measure as reducing the damage done if a ship is hit. Admiral Castex, the very able French writer, has remarked recently on this point that, supposing one 30,000-ton battleship of 20 knots is replaced by three 10,000-ton cruisers of 25 knots, the opportunity for successful aircraft attack will be materially reduced; and that, again, if the same tonnage were divided between 12 ships of 30 knots, the effects would be still further reduced; while, finally, if once more it were distributed in 20 vessels of 1,500 tons and 33 knots, the danger would become practically negligible.

In face of this obvious fact, and also in face of experience in the late war that the smallest vessels protected the largest against the submarine form of attack, it is impossible to assert that increase in size is either essential or the only way by which security from attack by unlike vessels can be obtained. We have it perpetually impressed upon us in our principles that offense is the best defense. The small craft acted offensively against the submarine, and, by destroying her, defended the trade. The great ship had no means whatever of offense and could not even defend herself. She was escorted and protected by the small craft. This is not to be interpreted as meaning that battleships were useless in the late war. They were essential because the enemy possessed them, but for no other reason.

“LARGE ENOUGH”

What, then, are the determining characteristics of a man-of-war in order that she may be able to undertake the operations necessary for her to fulfill that immediate and indispensable task of overcoming the armed force, that essential preliminary to exercising the control of communications which is the ultimate aim of the

operations of war at sea? She must be able to go wherever the enemy is to be found, and, when she meets him, to fight him. We see that the latter part of this requirement is independent of mutual size. But the former is not independent. Endurance and seaworthiness are implied, and these demand size. But what size? How far may ships have to go to do that which they have to do. As their size increases, by virtue of their endurance, so does the need for armament increase; for they become more capable of standing injury. Thus, as in the measurement of the strength of navies, a criterion by which to measure size is needed. It is useless to say that a ship must be "large enough to fight another" when the other has also to be "large enough" to fight her. The standard fluctuates with the ship.

There is at least one standard to which the man-of-war must conform. She must be of such a size as will enable her to go where she is required for the purpose of conducting blockade or intercepting the enemy's transports or contraband carriers, be fast enough to overtake those ships, and strong enough when she meets them to overcome their resistance. The merchant ship armed becomes a man-of-war herself—we saw her in the recent war in the *Möwe*, the *Wolf*, or the armed merchant cruisers used to protect convoys. She is in fact a cruiser, though a very weak one. It is here we are able to obtain that fixed point, that criterion of strength and size, for which we are in search.

The strength with which it is possible to endue a merchant ship is, for all practical matters, strictly limited. While it may be possible for individual ships to be specially fitted to carry a heavier gun (as the *Wolf* was), or even to carry a larger number, it is just to say that the maximum possible armament which can be effectively put into a merchant vessel is ten 6-inch guns. The armed merchant cruisers in the late war carried no more than 10—some 8, some 6, of which 4 or 5 were on the broadside. When we consider the advantages which a ship directly designed for fighting possesses over a ship directly designed for mercantile purposes, there can not be the smallest doubt in the world that there is not a single naval officer of any country who would have the least hesitation in engaging a fighting mercantile vessel armed with 6-inch guns in a ship whose armament consisted of guns of no larger caliber.

SPEED

As to speed, there are in the world to-day not more than 40 merchant vessels faster than 20 knots. They represent about 1.5 per cent of the world's mercantile tonnage, and it is not they that carry the great cargoes of bulky materials vital to nations or armies, but

the ships under 16 knots which constitute nearly 90 per cent of the total tonnage. Seeing that the speed of the fast ships is of no importance for any serious act or invasion, it is not improper to conclude that an absolute figure might be fixed for the speed of a man-of-war in the performance of her ultimate function. The shipping of importance in war is that mass of 16 knots and under. Provided the man-of-war is of such a speed as will enable her to deal with such a ship, her speed is sufficient. Opinions as to what this should be will probably vary, but few officers with knowledge and experience of the conditions would put it higher than 28 knots, many not higher than 24.

Endurance is the next factor. It is determined by the length of the longest voyages that have to be made, and the speed at which they are required to be made. Different nations have different needs, and the need of those which have the longest voyages must be provided for. Without attempting to dictate, it seems probably that an endurance of about 8,000 miles at 15 knots would meet the needs of any nation; if not, the figure is determinable on those lines. It is not the precise figure that I need here discuss, even if it were possible for me to do so, but the elements upon which the calculation depends.

We have now all the elements entering into this question of the minimum tonnage that will enable a ship to fulfill her purpose. For my own part I am of opinion that they can be embodied in a ship of much less than 10,000 tons. We have then to consider whether a navy of which the largest ships are of such a size can undertake the purely military duties, strategical and technical, involved in overcoming armed forces composed of ships the largest of which are the same tonnage.

THE PROPER JUDGE

I use the words "of the same tonnage" advisedly, for to that only limitation should apply. I consider it would be as improper as it would be unscientific to define with what guns, armor, endurance, or speed a nation should provide its ships. These depend upon national needs and tactical conceptions, of which, as of the "global" size of its forces, the nation alone is the proper judge. Arbitrarily to tie a nation down to some caliber of gun, thickness of armor, endurance, or speed would be absurd. The great central problem of the defense of one nation's interests may be the control of a particular stretch of water less than 1,000 miles square, as it was with Japan in the Russo-Japanese dispute. For that purpose a great endurance may not be necessary. Such a nation may not consider a high speed so important as what could be substituted for it in gun power. It may prefer a very few great guns or a larger number

of smaller guns. It may hold that armor is essential, or that a greater volume of fire is a better form of defense. For any single body of men arbitrarily to decide would be contrary to the dictates of common sense.

The less circumscription of freedom in design, the less jealousy will there be, and the fewer of those perpetual attempts to maneuver advantage by proposing amendments in the allowance of caliber or anything else. Simplicity, not complexity, in the scheme of limitation is what is desired. The fewer factors there are for determination by international agreement, the fewer are the subjects of controversy and the opportunities for creating ill will, either in coming to a decision or in the subsequent adaptation. Construction is, and must be, merely applied strategy and applied tactics.

A NAVY'S OBJECT

I come then to this conclusion: That it is for statesmen to enunciate the principle that the object of navies is defense only, and that their size is therefore related solely to the requirements of defense. That the standard of strength is the strength of those powers with least dependence upon security at sea. That each nation is the judge of its own needs. That the size of the ship depends ultimately upon the strength which can be put into the merchant ship. That a tonnage sufficient to enable a vessel to control operations is also sufficient for enabling it to conduct the operations precedent to control. That, within the limit determined by the characteristics required to arrest the merchant ship, nations should be free to distribute tonnage in their own ships as they please among the several factors of armament, protection, speed, and endurance. That those requirements can all be fulfilled within a tonnage considerably lower than 10,000, provided such tonnage will give all nations the endurance the needs of their defense require; if not, it must be larger.

These articles have been confined to the question of the sizes of navies and of ships. The manner in which (if these conclusions, or some such conclusions, should be arrived at) the transition could be achieved is a separate problem which it does not pass the wit of man to solve.

ADMIRAL DEWAR ON BATTLESHIPS

Writing in the *Daily Herald* (London), of December 12, 1929, Admiral K. G. B. Dewar, R. N.,¹ advocates the reduction of the number and size of battleships in the following terms:

¹ Rear Admiral Dewar will be remembered as having figured prominently, with Rear Admiral Collard and Commander Daniel, in a court-martial at Gibraltar a few months ago while as a captain he commanded H. M. S. *Royal Oak*, and is a brother of Capt. A. C. Dewar, R. N., the eminent naval writer.—*Ed.*

If in 1922 the principal maritime powers agreed not to build warships of over 35,000 tons, is there any reason why in 1930 they should not reduce that limit to 10,000 tons and scrap everything above that figure? An agreement on these lines would certainly not disturb the equilibrium of naval power which depends on the relative strength of different navies.

Battleships merely balance battleships, and if the naval powers agree to abolish them no one will be any the worse, and a heavy burden will be lifted from the taxpayers' shoulders.

VESTED INTERESTS

Every sort of objection will be offered to this proposal, for very strong interests are vested in the survival of the large ship. It is important, therefore, that the general public should acquaint themselves with the question at issue. In war the real work of trade protection has always been primarily carried out by the small cruising ships and flotillas.

The battleship's task of holding the ring can be done just as effectively by smaller ships, which have, as a matter of fact, fought more decisive actions than the larger ones. At Trafalgar the largest ship was about 1,200 tons; at the Yalu, 7,000; at Tsushima, 15,000; and at Jutland, 30,000. This continual growth in size has not been due to any functional necessity, but solely to the unreasoning rivalry of one navy to outbuild the other.

The introduction of the dreadnought type of battleship by Admiral Fisher illustrates the process. After an enormous expenditure on building up a fleet of these leviathans the relative strength of the German and British Navies remained unaltered. If these two countries had agreed in 1900 to limit their warships to 6,000 tons, and the British had maintained their numerical superiority, their relative power at Jutland would have been much the same.

MERE PROTECTION

The battleship merely protects the cruising ship from the enemy battleships. Remove the battleship from the board and the cruiser then becomes the ultimate expression of tactical power, and combines in herself the functions of the battleship. Even the humble torpedo-boat destroyer can effectually control a particular area until something more powerful appears over the horizon, and therefore in a war between countries possessing nothing larger than the destroyer she fulfills the rôle of the battleship.

Having thus disposed of the subject of limitation of battleships, Admiral Dewar then proceeds to discourse upon cruisers, aircraft carriers, destroyers, and submarines, as follows:

CRUISERS

There is, however, a limit in the downward scale. Cruisers must have sufficient seagoing qualities and fuel endurance to keep the sea for a reasonable period and to operate where they may be required. They must also have sufficient speed and gun power to protect the trade and transport routes from raiders and enemy cruisers.

All these qualities can be combined in a vessel of under 5,000 tons, of which the British *Delhi* class may be taken as an example. The 10,000-ton limit has been suggested merely because the maritime powers are already possessed of a number of these vessels, and that figure might, therefore, be accepted, except for new ships.

AIRCRAFT CARRIERS

The abolition of the battleship, battle cruiser, and large aircraft carrier, would realize enormous economies in personnel, stores, and repairs. It would also justify large contingent reductions in other classes of vessels.

The huge aircraft-carrier has also mainly been designed as an auxiliary to the battle fleet. It represents the unreasoning competitive instinct carried to the *n*th degree. * * *

DESTROYERS AND SUBMARINES

Limitation of the size of the individual ship does not, however, entirely dispose of competition in naval armaments. The cruiser controversy with the United States which led to the breakdown of the Geneva conference is sufficient proof of that fact.

Either the number and size of vessels in each class, including destroyers and submarines, must also be limited, or each power must be limited to a total tonnage inclusive of every type of warship. The latter is considered the most fair and reasonable arrangement, because the requirements of each country differ according to its geographical situation and other factors.

The proposal at the Washington conference to abolish the submarine was naturally viewed with suspicion by France and Italy. It is essentially the weapon of the weaker power, and is a perfectly legitimate weapon if used legitimately. * * *

FOR THE FUTURE

To sum up, the abolition of the battleship, limitation of the cruiser to 10,000 tons, and the rationing of total warship tonnage provide the means of obtaining real economy and security, and thus freeing the world from the burden of excessive naval armaments.

STATEMENT FROM BRITISH NAVY LEAGUE

That Admiral Dewar's above quoted opinion does not entirely reflect the view of the British "big navy" proponents is indicated in the following public statement issued two days later by Commander H. M. Denny (D. S. O.), R. N., retired, general secretary of the British Navy League:

It is a fallacy to say that capital ships are not necessary. They must be continued in some form, and must be sufficiently powerful to be immune from attack by the largest cruiser, submarine, and flying vessels when combined in a fleet with the necessary small craft, surface, underwater, and air.

As to what is the minimum tonnage which would adequately carry out these conditions there is considerable difference of opinion.

CRUISERS

When we come to consider the numbers of cruisers that are required, it must be remembered that the number of cruisers built by other nations has only a very small effect upon this factor. The main consideration is the immense extent of our Empire and the tremendous distances, as well as the enormous volume of our trade along the trade routes.

Admiral Earl Jellicoe, who is, without question, the greatest naval authority on this subject, has suggested that 70 cruisers are necessary, and I have seen no authoritative reason from any responsible source as to why this number should be reduced.

It matters very little to us how many or how few the United States of America may have, and it should matter very little to them what number of cruisers we consider necessary to our security. Our navy has been greatly reduced, and it is about time we stopped British disarmament until other nations have scrapped some of their great armed forces.

STATEMENT OF A BRITISH LABORITE MEMBER OF PARLIAMENT

Two days following the foregoing statement of the Navy League, public discussion of this highly controversial topic of battleships again appeared in the British press, when Mr. Holford Knight, a Laborite member of Parliament, issued the following rejoinder to Commander Denny's statement:

It is unfortunate that the House of Commons will have no opportunity to discuss the business of the naval conference before its assembly; and, meanwhile, the Navy League has revived its pre-war propaganda. The war has taught the league nothing. Its policy would render the conference a tragic failure.

It is useless for Commander Denny merely to relate the number of British cruisers to the enormous volume of our trade along the trade routes. The high seas are the highways and arteries of the world's commerce, and America in particular is vitally interested in the trade routes.

The practical question is, How is the accommodation of British and American interests to be reached? It can be done. A few of us on both sides of the Atlantic have been engaged on the problem for 10 years. The Government never had greater need of legal statesmanship than now. Fortunately we are certain the Parliamentary Labour Party can provide it.

A BRITISH NAVAL VIEW OF PARITY

In light of the public statement made on January 10, 1930, by the First Lord of the British Admiralty, Mr. A. V. Alexander, in announcing the new British policy in respect to cruisers (present requirement estimated at 50 instead of 70), and in which the general subject of parity was also touched upon, the following public statement from Rear Admiral Richard Fortescue Phillimore, R. N.,



which appeared in the London Times of December 18, 1929, is of interest in reflecting at least one view of the British Royal Navy. Admiral Phillimore was captain of H. M. S. *Inflexible* at the Battle of the Falklands, and during the Dardanelles bombardment in 1915; he also served as first and principal naval aid-de-camp to the King, 1928-29. Admiral Phillimore's statement follows:

The French mind is notoriously logical, and presumably their official assessment of the purely naval requirements of Great Britain and the United States as being in the ratio of 10 to 4.2 will be generally concurred in, but the dangers of the doctrine of parity can best be shown by carrying our minds back to December, 15 years ago.

December, 1914, began with all British South American trade paralyzed by von Spee's victory at Coronel. The month closed with trade activity restored by the Falklands action. Sturdee's was a tactical victory, the most complete ever gained upon the high seas, but the strategical victory was Lord Fisher's. As we read in Admiral Bacon's book, Fisher had the *Invincible* class built "to be able to fight any cruiser afloat," and, 10 years afterwards, they were used by Fisher himself for exactly their designed purpose. Bacon explains that "with Fisher to fight meant to crush," and adds—"With him there was no question of designing a cruiser equal in strength or speed to the enemy." In other words, he would have no "parity cruisers."

How different might have been the result on December 8 if we had not been in overwhelming strength and possessed of superior speed. Actually the German 8.2-inch guns outranged our 12-inch, and their 4.1-inch guns our older 6-inch, while it is common knowledge that their well-trained crews fought their ships with the utmost gallantry. But we had "the big battalions" on our side that day.

Why jeopardize the precarious seven weeks' food reserve our teeming population depends upon by lowering the factor of safety? We do not attempt to dictate to the individual the clothes that he must wear to maintain his blood in circulation; why should not a sovereign state decide for herself the necessary protection for the circulation of the trade that is her life-blood? "*Si vis pacem para bellum*" is out of fashion; we might coin a new word and adopt "Peace with preparity."

ANOTHER BRITISH NAVAL VIEW OF THE CRUISER SITUATION

As indicative of British naval opinion upon the subject of naval armament limitation, it may be of interest to note the following from an address made by a retired British naval officer, Vice Admiral Ernest Augustus Taylor, at a meeting of the 1912 Club in London on December 17, 1929, the day previous to publication of the above statement from Admiral Phillimore. Admiral Taylor commanded H. M. S. *Renown* during the Prince of Wales' tours to Canada, Australia, and New Zealand in 1919-20. During the course of his address Admiral Taylor said:

We are entirely in the dark as to what the Prime Minister has committed the country to in his conversations with President Hoover and the American ambassador in London, but one thing stands out

quite clearly, and that is that he has agreed that the United States shall have a navy in all its branches of an equality with us. Often I have heard people who ought to know better state that we accepted the basis of equality at Washington. We did nothing of the kind, we accepted equality in heavy ships only. Heavy ships and cruisers have very different functions to perform, and whilst we could agree to an equality in the former case it does not in the least follow that we can do so in the latter.

The United States can not give a logical argument showing that there is an equality of national responsibility between us, and as far as international responsibility is concerned that is the one thing America will not undertake. My point is that all this talk of equality is wrong, and that countries should state what their needs are for national security and endeavor to bring about a solution on that basis.

It is fatuous for a politician or any layman to dogmatize on such a difficult and complicated matter. Material and scientific developments affect the naval tactics, and as these are continually changing and progressing, so must naval tactics be in a continual state of development and amendment, and only the expert can appreciate the effect these developments must have upon the type and strength of forces. In 1914 we had 114 cruisers, and the number proved insufficient. We have now 52 cruisers, and of that number 26 were completed previous to the end of the war, and in consequence of the arduous work done during the war have had their lives shortened considerably.

Lord Jellicoe stated two years ago that we required 75 cruisers,¹ of which 25 are required for work with the battle fleet, leaving only 50 to safeguard 80,000 miles of trade routes. Now we are told that 50 is to be the total number allotted to us. I think the country ought to know what is the basis on which this number 50 has been arrived at and how it has been possible in two years to reduce the number by one-third without sacrificing our security.

¹ At the second plenary session of the Geneva conference, on July 14, 1927, Admiral Jellicoe stated that "the requirements of the empire to-day have been given as some 70 cruisers."—*Ed.*



BRIEF REVIEW OF INTERNATIONAL AFFAIRS

BRITISH EMPIRE

FIVE-POWER NAVAL CONFERENCE

Several recent statements by British officials throw considerable light on the problem of British policy at the conference. On January 8 Mr. MacDonald stated that the British delegation would deal with "every class of naval ships, from dreadnoughts to submarines." At the same time, he said that Great Britain was prepared to propose "a considerable reduction in naval programs." On January 10 the First Lord of the Admiralty announced that Britain intended to propose reducing her requirements in cruiser strength from 70 to 50 as the minimum up to the next date for a conference which was expected to be in 1936. On January 13 the First Lord stated that the British would submit the following three points to the London Naval Conference: A proposal to reduce the tonnage of capital ships; reduction of British cruiser needs from 70 to 50; and readiness to agree to the complete abolition of submarines, which last plan would affect the question of destroyer requirements. On January 14 77 Labor members of Parliament signed a manifesto calling for the abolition of battleships and the reduction of all warships to a maximum of 10,000 tons. On January 15 Mr. MacDonald announced that it was the desire of the British Government that battleships should eventually be eliminated from the fleets of the world and that, in the meantime, there should be an agreement to postpone their replacement.

UNEMPLOYMENT

The steady increase of unemployment in the industrial centers and failure of the Government to solve this pressing problem is now rivaled by the discontent of the farmers. The latter are preparing a petition calling the attention of the Government to the deplorable conditions of British agriculture. They complain that with current prices they can not make both ends meet. The tendency of farmers to turn arable lands into grass is resulting in diminishing employment for farm workers who are, nevertheless, resisting any attempt to reduce their pay and want the benefits of the dole. The present unemployment insurance scheme does not extend to agricultural workers.

INDIA

Anti-British feeling is running high in India. The Indian National Congress, which met two weeks ago declared for complete independence in India. There seems to be much concern in the British business world about the trade between India and England which is steadily diminishing. Apparently the British Labor Government realizes that England can not permanently hold India without Indian cooperation. The next critical day in the Indian situation will be January 26 which is called "Independence Day," and on which is expected to begin a period of hostile demonstrations against the British Government. Incidentally, the total number of British in India is 165,000 against a native population of 320,000,000.

AUSTRALIA

Australia is not very sympathetic toward Lord Beaverbrook's "empire crusade" to weld the British Commonwealth into a single economic unit like the United States. The general argument in the press reports on this subject seems to be that Australia relies, to a great extent, on its customs duties for revenue and its whole economic position has been established on a protective tariff basis.

NEW ZEALAND

Recent riots in Samoa, which is under New Zealand mandate, resulted in the despatch on January 2, of the cruiser *Dunedin* from Auckland to Samoa to aid the New Zealand administration in carrying out a firmer policy. Many arrests have been made as a result of the riots, in which a New Zealand police official was killed.

IRAQ

On January 8, a treaty was signed in London between the United States, Great Britain, and the Kingdom of Iraq, which gives to the United States and its nationals the same rights as are enjoyed by the members of the League of Nations. The subject of petroleum was not mentioned, but it is understood that the interests of American oil companies in the Mosul district come under the convention. It also provides for the recognition by the United States of the independence of Iraq, a step which has already been taken by Great Britain and other powers. The total number of American citizens in Iraq is about 150.

PALESTINE

The Palestine Inquiry Commission held its first meeting in London on January 9, to consider further procedure in connection with the examination of several witnesses in England. Since the de-

parture of the commission from Palestine no developments have occurred there and apparently the situation between the Jews and the Arabs has completely quieted down. It is not believed, however, that the Arabs will ever passively submit to the Balfour program.

SOUTH AFRICA

Recently there has been much native unrest in South African districts, apparently centering at Durban, Natal. There seems to be considerable justification for the opinion that communist agents have been instrumental in stirring up discontent among the natives. On January 13 rioting broke out at Carnarvan, Cape Colony, after a series of native meetings. The mayor was seriously injured and several other Europeans were wounded. The rioting was caused by dissatisfaction among the natives over their holdings in the municipal common land. It is interesting to note that General Smuts declared, in a speech in New York on January 9, that "efforts to impose the civilization of the white race upon the aboriginal population of South Africa can only result in Bolshevizing the native and making him a menace to the rest of the world."

ANGLO-EGYPTIAN RELATIONS

The Nationalist leader, Nahas Pasha, who has formed a new Egyptian cabinet after his party's triumph in the recent general elections, has taken the portfolios of Prime Minister and Minister of the Interior. Nahas Pasha has announced that one of the real measures of independence for Egypt is the forthcoming negotiations for a new Anglo-Egyptian treaty. He declares that Egypt will endeavor to reach an honorable and stable agreement with Great Britain. It is worthy of note that this proposed Anglo-Egyptian treaty and the recent forced resignation of Lord Lloyd as British High Commissioner in Egypt have been the subjects of very bitter attacks against the British Labor government by the Opposition in the House of Commons.

CHINA

A recent dispatch indicates that the Nationalist forces are making real headway toward the overthrow of Tang Sen-chi, the last of the active rebellious groups. With this Honan group under control the pacification throughout China, for the present at least, should be complete.

On January 15, Admiral H. K. Tu, of the Chinese Navy, arrived in Washington. With two other officers and two secretaries, this group comprises a mission for the purpose of studying foreign navies. Admiral Tu was born in 1875, and received all his training

in China. He was commander in chief of the navy from September, 1922, to November, 1923. As a member of the Chidli Clique and a supporter of Wu Pei-fu, he was Minister of the Navy in 1926, and, at times, acting Premier.

JAPAN

On January 11, 1930, Japan raised the gold embargo that has been in existence, except for one shipment in 1925, since 1917. It was originally a part of the antienemy trading regulations, but later was continued in force in order to keep up the value of the yen by restricting imports and thereby reducing to a minimum the unfavorable trade balance. At the same time it had the effect of promoting domestic industrial activities, which are now presumed to be permanent.

RUSSIA

RUSSIAN TRADE

The Amtorg Trading Corporation, New York City, sale representatives in the United States of the principal import, export, and industrial organizations of Russia, announce a direct steamship line under the American flag between New York and the Black Sea ports of Odessa, Novorossisk, and Batum. It is known as the Export Steamship Line and provides for the sailing of two vessels a month, on the 10th and 25th respectively.

Orders placed by the Amtorg Co. for shipment to the Soviet Union last year amounted to \$94,500,000, or nearly three times the \$32,300,000 shipped during 1928. The increased demand for modern equipment for the new industrial developments in the Soviet Union during the last year and the demand for agricultural machinery for the large state and cooperative farms are given as the predominant reason for this increase in Soviet trade. During the year about 800 American business men visited the Soviet Union, while about 600 Soviet industrial and agricultural leaders visited this country.

THE FIVE-YEAR PLAN

The Soviet Five-Year Plan (1928-1933) became a law in April, 1929, and, following the usual Bolshevik methods, everything is subordinated to the "socialist construction" of Russia.

Industries are now the chief preoccupation in soviet politics and it is proposed that money (estimated at \$43,000,000,000) to finance this extensive plan will come from internal loans, from profits derived from industry, and from a new issue of bank notes. Its realization will necessitate a rapid growth in the heavy industries, the

stabilizing of business, and severe discipline in the ranks of the workers.

Under the slogan "To overtake and outstrip the capitalist States," the Government is taking strong measures to urge the people on. Indicative of this is the adoption of the 7-day week with three shifts, in order that the machinery may not be idle except for repairs or the three big communist holidays. Apparently, this is the Soviet's solution of the problem presented by the natural slowness of the Russian workman and his unusual lethargy under the communist system. Their plans contemplate an excess of workers in each shift in order that a due proportion may rest each week, or once every 10 days. They are also trying to discontinue the observance of Sunday as a day of rest.

Other measures adopted give the directors of factories full power in hiring and dismissing employees and making regulations concerning personnel without reference to the workmen.

Recent contracts negotiated by American firms with Soviet Russia in connection with this industrial program include procurement of the following products: Automobiles, aircraft, road-building machinery, factory machinery, hydroelectric plants, tractors, electric materials, and submarine periscopes.

ARGENTINA

Hostility toward President Irigoyen, even in high political circles, apparently has not abated. At its session on November 30, the Senate passed a resolution which was equivalent to a condemnation of the President for the actions and policies of his administration.

At a later session the Senate passed a vote censuring the Vice President for failing to present to the President a resolution of the Senate asking for the appearance of the Minister of the Interior before that body to inform it of the actions and policies of the administration. In both these cases the action of the Senate was favorably received by the people in general and by the native press with the exception of the two administration papers.

While the present political situation in Argentina is not such as to indicate that a serious upheaval is imminent, nevertheless, there does exist a state of unrest and uncertainty which has come into being as the result of long continued dissatisfaction with the present administration.

URUGUAY

Press dispatches from Montevideo contained unconfirmed reports that a revolution had been proclaimed in the Rivera Province of Uruguay, near the Brazilian frontier by Nepomuceno Saravia, son

of the late General Aparicio Saravia and leader of the Nationalist Party. The facts are still in doubt, although a manifesto, issued by the Nationalist Party, denies support of any armed revolt.

No statement was obtained from official circles but it was reported that troops were being mobilized in the rural sections and that public funds and bank reserves had been ordered withdrawn to the larger cities where there are regular army garrisons.

The Uruguayan Navy Department has submitted to the President a plan for the reorganization and improvement of the navy. The plan, which involves an expenditure of \$6,000,000, has been approved by the President and submitted to the administrative council for enactment into law.

In addition to certain construction for the shore establishment, including naval aviation bases, docks, etc., the plan contemplates increasing the navy by the addition of two destroyers of from 500 to 600 tons each, two torpedo boats of approximately 300 tons each, one transport of 8,000 tons, one steam and sail training ship of 2,000 tons, one hydrographic ship, and a number of planes. Repair of the cruiser *Uruguay*, at an expense of \$3,000,000, also is contemplated.

ECONOMIC SITUATION, LATIN AMERICAN COUNTRIES

In most of these countries the economic situation continues to be unfavorable and shows little indication of improvement in the near future. In Brazil, Colombia, Venezuela, Guatemala, El Salvador, Costa Rica, Nicaragua, and Haiti, the unsatisfactory conditions may be ascribed largely to a sudden decline in the price of coffee during the month of October, 1929. Owing to the substantial increase in the production of petroleum, Venezuela is more favorably situated than are the other countries named. The low price of sugar has had a serious effect in Cuba, the Dominican Republic, and Peru, the latter also being adversely affected by the price of cotton, which is one of its principal exports. In Bolivia the index of prosperity is the market value of tin, a commodity which has declined in price more than 20 per cent during the past year. Mexican business appears to be at a standstill, owing to political conditions and uncertainty as to the effect upon business of proposed legislation. In the other Latin American countries the economic situation generally is far from satisfactory, a condition which results in part from local causes and also from the depression in neighboring countries.



DIGEST OF EDITORIAL COMMENT

(DECEMBER 15, 1929, TO JANUARY 15, 1930)

Of the 1,400 editorials received in this office in the latter part of December, 500 related to the promotion of Rear Admiral Byrd and the Antarctic Expedition, 95 per cent indorsing the action of the Senate.

Seventy editorials were devoted to General Butler's recent speech on the method of handling Nicaraguan elections in 1912, although frequently these discussions neglected to include the date, thereby giving an opinion that conditions described were current ones. Editorial opinion was divided as to the steps that should be taken. Many writers termed the general a "Blow hard," "Wise cracker," etc., and demanded he be censured. The remaining ones led by the Philadelphia Record have termed the incident an affront to the policies of the State and Navy Departments, a reflection in the eyes of the European and a very sensitive Central American press, and are urging a senatorial investigation. All are unanimous in condemning some one, either the general for his improper remarks, or the administration for its policies of imperialism and intimidation.

Revival of interest in the American merchant marine is noted by the editorials in many papers from the Middle West region. An address by Alfred H. Haag, director of the Bureau of Research of the United States Shipping Board, has been widely quoted.

The *Lexington* incident continues to draw sarcastic jibes from a widely diffused press. Recently former Assistant Secretary Robinson while on the Pacific coast is quoted as having said that loaning the *Lexington* to Tacoma was the greatest mistake the administration ever made in handling the Navy. This reopened a tender subject and for the succeeding two weeks West-coast journalism rang with recrimination of beaurocracy, red tape, pomp, ceremony, and naval officers riding around waiting for war to come and in the meanwhile having a good time. This incident has also kept alive the much-discussed question of the value of these ships as effective military units.

The New York Herald-Tribune and Saturday Evening Post editorials on service pay have been widely quoted in many smaller dailies. These have been usually without comment but in many instances favorably endorsed.

General satisfaction has been expressed over the fact that the *S-22* is now equipped with all the safety devices adopted by the Navy Department.

The northern California papers are still hotly contesting the department's decision regarding the Camp Kearney site as a Navy dirigible base. Congressman Britten's suggestion that the House Naval Affairs Committee visit the Pacific coast and inspect the two bases under dispute has been the incentive for renewed journalistic attack on the department's choice.

The Louisville Courier-Journal and Christian Science Monitor have won many new adherents in their crusade to end the battleship régime. Among the largest of these are: Florida Times-Union, Chicago Evening Post, Portland Journal, and Capper's Weekly. Under the caption "Do Away with Dinosaurs" the Richmond (Virginia) News says "Scrap the battlefleets altogether and until parity in cruisers is reached, let the United States rely on their present superiority of 100,000 tons in destroyers," etc. The circulation of the larger organs engaged in this program of economy, altruism and modernity is as follows: Chicago Evening Post, 40,000; Louisville Courier-Journal, 130,000; Christian Science Monitor, 110,000; Florida Times-Union, 65,000; Portland Journal, 125,000; Capper's Weekly, 400,000.

Considerable editorial space has been devoted to the recent French naval attitude and within the past few days the subject of naval bases as an element of sea power has been widely discussed.

The most important single development in editorial comment for the past fortnight has been the growing demand for action on the battleship—either scrapping entirely by international agreement or an extension of the holiday period. In this regard Hector Bywater, usually termed "The most authoritative writer on naval subjects in Great Britain," has been widely quoted, as has Admiral Sims' remarks on the battleship fleet and the Mississippi River hiding place. Hector Bywater, present day advocate of the smaller fighting ship, won a prize essay in the United States Naval Institute Proceedings for an article on the Battleship.

The Shearer-Fiske incident supplied the chief target for Navy editorial criticism during the first two weeks of 1930. Discounting much of this as purely sensationalism and "news interest," several significant developments were the outcome of the admiral's sponsorship of the "Big bass drum."

A widely-scattered press again questioned the part played by naval officers in furnishing the "big-navy" lobbyist with material to carry on his relentless war against naval reductions, Congressman McClintic of the House Naval Affairs Committee took the oppor-

tunity to issue a statement warmly congratulating the President for confining his delegates to representatives of the people rather than to the officers of the Navy. He placed the onus of the Geneva failure squarely upon the shoulders of the American delegation, the majority of whom were naval officers, ably supported by "a representative of certain shipbuilders." Emphasizing the fact that an officer of the Navy had said that \$3,000,000 would be inadequate compensation for Shearer, he repudiated the unholy alliance of those who have selfish interests to serve, concluding his observations with the remark that the American representatives might as well have slapped their fellow deliberators in the face as to commence a conference with so belligerent an attitude as expressed in the 1927 slogan "10,000-ton cruisers, 8-inch guns, and no compromise."

Mr. McClintic's main attack was launched primarily against Admiral Fiske and to a lesser degree against all naval officers. His comments were extensively quoted, commented upon at length and with a few outstanding exceptions approved. Undoubtedly the timely statement of the Secretary of the Navy to the effect that naval officers "are not pugilistic swashbucklers looking for war" did much to disabuse the public mind of the unfavorable impression created by press comment on both the Fiske sponsorship and the remarks of the Oklahoma Congressman. It is noteworthy, however, that the sober declaration of the Secretary was not accorded the editorial space awarded the highly sensational charges of Mr. McClintic.

On January 6, 1930, the New York Herald-Tribune issued a lengthy rebuke to Congressman McClintic stating that "the very absurdity of the charges will probably do the Navy more good than harm." This editorial was quoted in many papers.

Editorial opinion in this country for the past 15 days echoes the British press regarding the ultimate disposition of the battleship. Comment from British newspapers indicates an almost unanimity of opinion regarding the abolition of the battleship as at present understood. Among the most influential of these with their political affiliations are the following: Morning Post and Times, both Conservative; Manchester Guardian, Advanced Liberal; Economist, Independent Liberal; News Leader, official organ of the Independent Labor Party; London Spectator, non-partisan Conservative (weekly). It may be expected that all British press organs regardless of political complexion will align themselves solidly behind their premier in his reported interview of January 15, regarding the ultimate abolition of the battleship. Widely quoted in the United States is the statement of the London Times; "Competition created the 35,000-ton battleship. Imitation sanctified it. Strategy does not require it, and economy condemns it."

The News Leader carries on a relentless campaign against the capital ship under a program of economy, the arguments for which are familiar in this country. Sample: "What the nation spent in building this ship (picture of the *Rodney*) would provide 18,750 homes or one-fourth million old-age pensions," etc.

In the London Daily Telegraph Hector Bywater conducts a "Yardstick" investigation, pointing out:

(a) The superiority of the United States Battle Fleet—all oil burning, 192 great guns against 166 of British.

(b) United States cruiser strength, built, building, or projected, superior to British—stresses later developments and design, greater power, speed, etc.

(c) Overwhelming superiority of United States in destroyers, submarines, and aircraft—cites remarks from United States Naval Institute to support contention regarding destroyers.

This paper goes on to say that this "may supply a clue to Mr. Hoover's vague reference to excessive expenditure on defense in his recent message to Congress."

Supporting the Conservative Daily Telegraph in these estimates are the conclusions of the Conservative Daily Express emphasizing the overwhelming superiority in torpedo strength of the American Navy. The Chicago Tribune takes issue with the Express on every point advanced by the latter, accusing the English journal of including obsolete craft and weapons in its findings.

Lacking, however, is the universal support of the British press relative to the recent announcement of Mr. Alexander, First Sea Lord of the British Admiralty, regarding his cruiser-cut proposal. On the contrary, the Conservative press, or at least a portion of it, is aligning itself with Lord Bridgeman. The Telegraph in a series of articles by Hector Bywater has pointed out the danger to the unemployment situation in too drastic a curtailment of the Government's building program.

Turning now to the American press it is too early to assess the influence of the MacDonald press interview upon the editorial opinion in this country. However, the attitude of the English press has already found a sympathetic spirit in a portion of American journalism. As previously stated, the remarks of the London Times were given considerable publicity in the United States. Of that group of American newspapers favoring the total abolition of the battleship the most aggressive leaders are the Christian Science Monitor, the Louisville Courier-Journal, and the Portland (Oregon) Journal. In the current issue of Liberty (January 25, 1930) appears an article written by Brig. Gen. Henry J. Reilly, O. R. C.: "Is the battleship obsolete?" Citing the events of Jutland as a justification for his conclusions General Reilly believes that the battleship still retains

its predominant rôle as the fundamental element of a modern fleet. Neither the New York World nor the Washington Post believe that the battleship proposals should be permitted to becloud the issue for which the conference was primarily called—limitation of auxiliary craft.

If press comment reflects public opinion in this country, then there is little doubt but that if advocated to-day by Great Britain there would be no strenuous objection here to: (a) Postponement of replacement program, or (b) limiting the size of warships below 35,000 tons. Regarding the complete abolition of battleships or radical reduction in numbers there is a sharp diversity of opinion. Many papers see no sanity in scuttling 18 battleships already in existence if money is to be raised immediately thereafter to construct a host of smaller vessels to replace them. A syndicated editorial circulated throughout the Middle West features the battleship as embarking on its final cruise, but cynically concludes that admiralties will devise worthy substitutes. One paper, accepting the dictum that battleships are obsolete, does not consider this an adequate reason for replacing them with more effective weapons.

Quoting a formidable array of statistics to prove his point William Hard in the current issue of the World's Work makes a logical plea on economic grounds for the extension of the holiday period in battleship replacements, and urges that the first money thus saved be diverted to the pocketbooks of naval officers whose pay has not been appreciably raised since 1908. In connection with the foregoing the indications are that the press generally treated with apathy the attempts of the Saturday Evening Post, Chicago Tribune, and New York Herald-Tribune to popularize increased pay for naval officers. There was no adverse comment, but after the first few days there was very little comment of any kind.

With a few unimportant exceptions the press on both sides on the Atlantic have accepted the idea of "naval parity" as the basis of all Anglo-American deliberations. Any attempt to upset the status quo of this policy, as understood by the lay mind, would be met by a strenuous opposition in this country. It is almost a sentimental conviction in the United States that this Nation, the wealthiest on earth, must have a Navy "just as big" as anybody else—in most cases an emotional reaction inspired by national pride rather than a reasoned conclusion as to its genuine necessity.

From an article published in the London Foreign Affairs for January 1930, excerpts from which have just reached this office, the following is quoted:

Mr. Hoover, in his Armistice Day speech, told the world that America is ready to "reduce her naval strength in proportion to any other
* * *." If we were to propose the abolition of battleships, he must

support us, and it is certain that a great wave of public opinion in America would support him. * * *

It is noteworthy that the vehicle of these views is The Times, a Conservative organ carrying the views of a British admiral in favor of this policy of battleship abolition.

* * * The Spectator also a Conservative paper gives most uncompromising support to this movement * * *.

The Spectator insists that the real decision will be with Great Britain, and intimates that our policy should be, "the one sound British policy at the coming conference would be to propose not a reduction but the abolition of the capital ship as at present understood * * *."

This then is the simple issue before us: "Unless the great fighting ships of over 10,000 tons can be abolished, the conference will not achieve any real reductions, and will reveal itself to the public as an all but complete failure."



DELEGATES AND ADVISERS TO LONDON NAVAL CONFERENCE

The following additional information relative to delegates and advisers to the London Naval Conference has been received since issuing the December, 1929, number of the BULLETIN :

BRITISH EMPIRE

INDIA

DELEGATE

Sir ATYL CHANDRA CHATTERJEE, Indian high commissioner in London.

Born November 24, 1874; High Commissioner for India to the United Kingdom since 1925; educated Presidency College, Calcutta; King's College, Cambridge (Government of India scholar); member board of industries and munitions, 1920; Indian Government representative at International Labor Conference, Washington, 1919, 1921, 1924, 1925, 1926, 1928; president International Labor Conference, 1927; League of Nations Assembly, 1925; Secretary to the Government of India, Department of Industries, 1921; member of India Legislative Assembly, 1921.

CANADA

DELEGATE

Col. Hon. JAMES LAYTON RALSTON, Canadian minister of national defense (since 1926).

Born in Nova Scotia, 1881; King's Council, 1914; Commander, Michael and George, 1918; Distinguished Service Order, 1917; doctor of law (Acadia); privy council, 1926; Member of Parliament; governor, Acadia University; educated at Amherst Academy; Dalhousie Law School; called to Nova Scotia bar, 1903; elected to Nova Scotia Legislature for Cumberland 1911 and 1916, but defeated (Cumberland) 1920 and 1925; candidate (Halifax), for House of Commons, 1926; went overseas with Eighty-fifth Canadian Infantry Battalion (Nova Scotia Highlanders), as major, 1916; went to France, 1917; served continuously until armistice was signed; commanded Eighty-fifth Canadian Infantry Battalion, April, 1918, to demobilization; returned to England April 20, 1919; to Canada June 8, 1919, and reentered practice; colonel, 1924; commanded Seventeenth Infantry Brigade; was chairman, royal commission returned soldiers' pensions, re-establishment and insurance; appointed by Federal Government; elected to House of Commons for Shelburne-Yarmouth, Nova Scotia, 1926; a Liberal.

SOUTH AFRICA

DELEGATE

CHARLES THEODORE TE WATER, South African high commissioner in London.

Born 1887 in Cape Province, South Africa; educated at Watson College, Edinburgh, and Cambridge; lawyer; elected to Parliament but defeated in 1929, and then made High Commissioner to Great Britain; South African, of Dutch descent; member of Nationalist Party.

NEW ZEALAND

DELEGATE

THOMAS MASON WILFORD, New Zealand high commissioner in London.

Born, 1870; formerly Minister of Justice and Defense; called "Father of New Zealand Parliament," having represented the Hutt Constituency for 30 years; was member of National War time Ministry; later became leader of the Opposition; throughout his career has been keenly interested in imperial affairs, and a strong advocate of naval defense; recently appointed to King's Council.

JAPAN

DELEGATES

MATSUZO NAGAI, Japanese minister to Belgium.

Born, 1877, in Aichi Pref; graduated from Tokyo Imperial University, 1902; passed examination for diplomatic and consular services, 1902; was appointed élève-consul at Tientsin in 1902; was transferred to New York in 1903; third-class secretary to the embassy at Washington in 1907; acting consul general at San Francisco in 1908; secretary to the Foreign Department and chief of the section of telegraphs of the same department; councilor of embassy, 1918; director of the commercial affairs, bureau of the foreign department, July, 1922; envoy extraordinary and minister plenipotentiary to Sweden, Norway, Denmark, and Finland, 1924.

FRANCE

DELEGATES

Premiere ANDRÉ TARDIEU.

Born, 1876; deputy from Department of Seine-et-Oise, 1919-1923; journalist, editor of *Echo National*, 1922; an officer in the French Army, serving at the front when recalled to his seat in the Chamber of Deputies; when the United States entered the war Tardieu came to America as French High Commissioner, doing much to help the United States in directing its efforts into channels most useful for the common cause; the war over, Tardieu was made by Clemenceau one of the five French delegates to the peace conference in Paris, 1919; as such he became an ardent partisan of the treaty, which he has since defended in the press; was offered a portfolio in Poincaré's Cabinet (1922) but declined.

Foreign Minister ARISTIDE BRIAND.

Born in Nantes, France, in 1862; was educated in the local schools of Nantes; is a member of the Paris faculty of law; member of delegation to

Washington conference; is considered one of the ablest statesmen and most brilliant orators in France; was formerly Minister of Public Instruction, 1906-1908; Minister of Justice, 1908-9; President of the Council 1909-1911; Minister of Justice, 1914-15; President of the Council 1915-1917; President of the Council, Minister of Foreign Affairs, 1921; has been Premier several times.

Minister of Marine M. LEYGUES.

Born October 26, 1857; for a short time in 1920 he was Premier; has held the post of Minister of Marine for several years.

Minister of Colonies M. PIETRI.

He is a Corsican; Inspector-General of Finance in 1905.
M. FLEURIAN, French ambassador to London.

ASSISTANT DELEGATES

M. MASSIGLI, French representative at League of Nations.

M. MOYSET, Professor at Naval War College and chief of cabinet to Tardieu.

PARLIAMENTARY ADVISERS

M. De KERGUEZEC, and M. DANIEL, presidents of naval committees, Senate and Chamber.

M. RIO and M. DUMESNIL, rapporteurs of naval committees, Senate and Chamber.

M. MODINAUD, deputy from Algeria.

M. CHAUMET and M. FERRY, ex-Ministers of Marine.

NAVAL ADVISERS

Vice Admiral VIOLETTE, chief of naval general staff.

Born at Besancon on May 1, 1869; entered the Naval School in 1886, and was promoted lieutenant in 1898; rear admiral in 1919 and vice admiral in 1924; has held various commands at sea and commanded a patrol from 1915 to 1916; the Mediterranean Patrol from 1916 to 1917, and division of the Mediterranean Squadron from 1919 to 1921 and the squadron itself from 1925 to 1927; he was director of submarine operations in 1917 to 1918 and has acted since the war as chief of staff of the southern station; naval prefect at Rochefort; and secretary to the Ministry of Marine; he is a grand officer of the Legion of Honor and holds the *croix de guerre*; he has a total of 41 years' naval service, with 29 years' sea service.

Rear Admiral DESCOTTES-GENON, ex-chief of ministers' military staff.

Born May 2, 1879; he entered the service in 1897; was commissioned an ensign in 1902; rear admiral, 1928; in the Ministry of Marine, 1925; command *Le Paris* 1926-27; chief of the Military Cabinet of the Ministry of Marine, 1928.

NAVAL TECHNICAL STAFF

Captain JOUBET.

Born June 28, 1875; entered the service in 1893; commissioned an ensign, 1898; captain in 1924; naval attaché, Rome, 1925; Ministry of Marine, 1928.

Captain CAMBON.

Born June 7, 1878; entered the Service in 1898; commissioned an ensign in 1902; captain in 1925; Ministry of Marine 1925-1927; command the *Lorraine*, 1928.

Captain DELEUZE.

Born July 10, 1881; entered the service in 1899; commissioned an ensign in 1904; captain in 1926; in 1918 he was assigned to the "Cadre de residence fixe."

SECRETARIES AND INTERPRETERS

Lieutenant Commander DEGLO DE BESSES.

Lieutenant GANDIN.

Lieutenant AUBOYNEAU.

Lieutenant BACHY.

AIDES

Lieutenant Commander LEMONNIER.

Lieutenant MOLAS.

Lieutenant LAPIERRE (MC).

The following-named officers may be called on temporary duty to London during the conference:

Rear Admiral DARLAN.

Captain DE RUFFI DE PONTEVEZ GEVAUDAN.

Captain DESPAX.

Commander SABLE.

Lieutenant Commander BARD.

Captain CHARPENTIER (CC).

Lieutenant Commander SALMON-LEGAGNEUR (CC).

Lieutenant FONTAINE.

ITALY

ADVISERS

Admiral ERNESTO BURZAGLI, chief of staff of the navy.

Born at Modena, June 7, 1873; midshipman 1892; captain in 1917; rear admiral in 1923; admiral of division in 1926; admiral of squadron in 1928; decorated with the bronze medal for military valor won as commandante of the naval base at Valona during the Albanian revolt in 1920; from 1923 to 1926 he commanded the Royal Naval Academy, after which he commanded the naval division of instruction (a part of the Naval Academy) until 1927; from December, 1927, he has occupied the post of chief of the general staff of the navy.

GINO BUTI, counselor of legation.

Born in Florence, Italy, March 26, 1888; attended the Royal High School of Venice; appointed consular attaché at New York, March 18, 1912; detailed to Washington as secretary of legation, December, 1914; assigned to the Ministry of Foreign Affairs, January, 1921; a secretary on the Italian delegation to the Cannes conference, January, 1922, and the conference of Genoa, April, 1922; secretary general of the Italian delegation to the Hague conference, June, 1922; appointed a consul of Class I, June, 1923; attached to the Italian delegation on the Dawes committee, 1923; first

secretary of legation, March, 1924; secretary general of the Italian delegation to the international conference of London on German reparations, July, 1924; attached to the Italian delegation at the financial conference of Paris, January, 1925; an expert on the Italian delegation to the International conference of Locarno on the question of security, October, 1925; secretary general of the Italian delegation for the funding of the Italian war debt with the United States, October, 1925; and of the Italian delegation for the funding of the Italian war debt with Great Britain; transferred to League of Nations section of the Foreign Office, 1927.

PELLEGRINO GHIGI, first secretary of legation, chief of cabinet of the Minister of Foreign Affairs.

Born in Ravenna, Italy, November 20, 1899; served with distinction as an officer in the World War; obtained degree in jurisprudence in February, 1921, at the Royal University of Bologna; appointed legation attaché, July 23, 1925; a secretary on the Italian delegation to the sixth assembly of the League of Nations, 1925; on the Italian delegation for the funding of Italy's war debt with the United States and Great Britain; was a secretary to Undersecretary of State Grandi until September, 1929, when he was made chief of cabinet on Signor Grandi's promotion to Minister of Foreign Affairs.

NAVAL SECTION

Capt. VLADIMIRO PINI.

Born in Livorno (Leghorn) August 12, 1879; midshipman, January 1, 1900; captain, November 1, 1926; saw service in the African war, in the war with Turkey, and in the World War, 1914-1918; decorated with the bronze medal for military valor for services as commander of a section of torpedo boats operating on important missions in the upper Adriatic during the World War; silver medal, first class, for technical and scientific work useful to the navy; chief of the cabinet of the Minister of Marine, December, 1926, to September, 1928; in that detail he was the officer with whom naval attachés had their official contact; now in command of the *Trento*.

Capt. Conte GIUSEPPE RAINERI BISCIA.

Born at Bologna November 14, 1879; midshipman December 16, 1901; naval attaché, London, November 3, 1923, to February 1, 1927; captain, October 31, 1928; ordered to the office for treaties from January 16, 1929, at the same time as expert in the delegation to the League of Nations at Geneva; has been handling the details of the limitation of armaments in the office of the chief of staff.

Lieut. Col. of Naval Engineers FRANCESCO ROTUNDI.

Born at Foggia, July 10, 1885; lieutenant in the construction corps, December 1, 1908; lieutenant colonel in the construction corps, April 1, 1924; now a member of the committee for the examination of ship-building programs.

Commander GUSTAVO STRAZZERI.

Born in Turin, June 5, 1888; midshipman, December 1, 1909; lieutenant, May 1, 1915; commander, December 15, 1927; saw service in the war with Turkey and in the World War; decorated with the war cross (1914-1918); is now engaged in the office of treaties in the cabinet of the chief of the general staff of the navy; speaks English.

Capt. Paymaster ANTONIO BORGONI.

Born in Naples, February 28, 1900; sublieutenant (commissary), March, 1925; captain (commissary), March, 1929; now in the office of treaties, chief of the general staff of the navy; reads but does not speak English.

SECRETARIAT

Count DELFINO ROGERI DI VILLANOVA, secretary general; counselor of the Italian Embassy, London.

ALBERTO NONIS, royal consul, private secretary of the Minister of Foreign Affairs.

Commander ARISTIDE BONA, aide to Admiral Acton.

Lieut. Commander CORNO PECORI GIRALDI, aide to the chief of staff of the navy.

Lieut. Prince FERNANDO ARAGONA PIGNATELLI CORTES, aide to chief of staff of the navy.

Lieut. FRANCESCO MIMBELLI, aide to the Minister of Marine.

RAIMONDO DEI MARCHESI GIUSTINIANI, vice consul.

RAIMONDO DEI BARONI TORELLA DI ROMAGNANO, vice consul.

MARIO PLETTI, consular attaché.

PRESS SERVICE

LUIGI VILLARI, counselor of emigration.



Card

NAVAL ARMAMENT LIMITATION

(NOTE.—*The following authoritative announcements relative to naval armament limitation have been made since issuing the previous number of the O. N. I. BULLETIN.—Ed.*)

FRENCH MEMORANDUM ON LONDON NAVAL CONFERENCE

On December 26, 1929, the French Government made public its memorandum, sent to the other four naval powers, in which were outlined the principles which will guide the French delegates in their actions at the forthcoming London Naval Conference. The text of the memorandum follows:

While accepting on October 16 last the invitation of the British Government to take part in the naval conference at London, the French Government reserved their liberty to define their views as regards the problems to be included in the agenda of the proceedings and the matters generally that may come up for discussion at that international meeting. After the exchange of views that has already taken place, the time appears to them to have come to explain their position in respect to the more vital questions of principle and method that will arise during the negotiations and the importance of which, as stepping over the purely technical limits of the case, requires that they be fully brought to light.

The French Government have already had the opportunity to express their appreciation of the considerations underlying the step taken by the British Government in conjunction with the Government of the United States. They are, too, well aware of the vital character of the task of limiting armaments. They have taken too active a part in the work hitherto prosecuted in this direction not to welcome a suggestion tending, as expressly stated by His Excellency, Mr. Arthur Henderson, in his letter of October 7, to facilitate the task of the preparatory commission of the League of Nations and later in the work of the general conference on disarmament.

It is, moreover, a problem of naval disarmament that must be looked upon since the meeting in April and May last of the preparatory commission in Geneva as supporting the work carried on by that commission with the efficient cooperation of the American delegates. Furthermore, the last assembly of the League of Nations declared that an agreement between the leading naval powers was necessary in order to prepare a general understanding in regard to the methods to be applied for the reduction of naval armaments.

The conversations already proceeding at the time appeared to that assembly as being likely to lead to a resumption and completion of the interrupted work of the preparatory commission and, ultimately, to the calling of a general conference.

It is, therefore, primarily on the principles and methods of permitting the subsequent drafting of a general convention for the limitation of armaments that the powers meeting at London should, in the view of the French Government, come to an agreement,

SEE WEAKNESS IN PARIS PACT

The British Government has stated that the Government of the United States and themselves had based their conversations on the Paris pact. The French Government, who have already had an opportunity to express the satisfaction with which they welcomed this statement, took too large a share in the working out of that pact for it to be necessary for them to emphasize the importance they attach to it.

The Paris pact is based on the force of public opinion, which is great, but its rational application has not yet been organized. It does not settle all the questions of peaceful procedure and mutual assistance against an aggressor implied in the outlawry of war. It is undoubtedly a real step toward the preservation of peace, but it can not be looked upon as sufficient in its present state to guarantee the security of nations.

It was this consideration, no doubt, that prevented the British Government from contemplating a substantial reduction in their naval armaments and the American Government from giving up the prompt execution of their latest naval program. While both are in agreement as to the impossibility of any actual conflict between them, they were not bound to consider that the primary task of their respective navies was to provide for the protection of their communications, which would not appear to rule, but the hypothesis of their being led to intervene in a conflict originating in the violation of solemn pledges.

Notwithstanding the significance ascribed to the Paris pact, it was primarily on the league covenant that the French Government, as well as the rest of the governments belonging to the league, undertook to base the limitation and reduction of their armaments, of which naval armaments are but a part. Incomplete as are the measures adopted for carrying it into effect, the covenant already provides the basis of a complete system of security based upon the application of methods of peaceful settlement and assistance to any state unlawfully attacked. Only in proportion to such assistance as they may be able to rely upon from without could the nations be in a position actually to reduce their armaments.

FREEDOM OF SEAS INVOLVED

Just as a general technical agreement upon armaments implies a previous political agreement, so does complete naval agreement presuppose an understanding on the question of freedom of the seas, defining the rights of belligerents and the rights of neutrals and providing for the prospective cooperation of other fleets against that of an aggressor country.

However deeply they may regret the present situation, the French Government, nevertheless, are determined to extend their full assistance to the powers meeting in London with the view to the conclusion of such arrangements as may be in keeping with present possibilities.

The question of methods is no less important in accordance with the example set by the Washington conference. The Government of the United States and the British Government would appear to have contemplated the adoption of a method such as the signing of a naval-armament pact dealing merely with the armaments of the five numerically most powerful navies, and based on mathematical ratios,

The experience, however, of naval conferences in the past tends to remind us that the principles of the Washington treaty met with a setback when the league attempted in 1924, to extend them to every navy, and it has frequently been demonstrated in Geneva that mere ratios do not permit of rational application, appropriate for every state, of the principles laid down in Article VIII of the covenant, which provides for a general reduction in armaments to a minimum compatible with the security of each state, and with international obligations imposed upon it according to its geographical position and its specific conditions.

In fact, the conference will fail to achieve its object to the full unless it makes it lead to a general agreement in Geneva as to the methods for the limitation of naval armaments.

FRENCH PRINCIPLES DEFINED

It was necessary to recall the above general observations before proceeding to define the principles whereby the French Government will be guided in the London negotiations:

1. It is upon Article VIII of the covenant that the French Government, faithful to their pledged word, intend to base reduction of their armaments. It is, indeed, upon this basis alone—a basis which does not imply a prior application of mathematical ratios and upon which the preparatory commission on disarmament already has based its work—that it would be possible, in their opinion, to work out an agreement acceptable for the governments not represented in London.

On the lines of Article VIII two methods for the limitation of naval armaments were confronted in Geneva, one by total tonnage and the other by classes of ships. The stronger navies were inclined to the latter method, while the rest were all in favor of the former.

Desirous of conciliating these conflicting views, the French delegation proposed as early as April, 1927, a compromise which met with the approval of all navies that will not be represented in London, and was sympathetically considered by several others.

The United States Government in particular took the opportunity on two separate occasions of publicly stating that they were willing to accept it as the basis for discussion. Under this arrangement, the limitation of fleets by total tonnage was to be supplemented by measures of publicity concerning the distribution of that tonnage between the chief classes of ships and the rules for the transfer of tonnage from one class to another.

Such a system, which has the further advantages of permitting minor adjustments, may adapt itself all the better to the needs of the projected understanding between the American and British Governments, in that it leaves any States that may desire to do so full liberty to bind themselves more narrowly as between themselves. In spite of their preference for the method of limitation by total tonnage, the French Government is willing to agree to this compromise should it prove likely to lead to a general agreement.

INTERDEPENDENCE OF FORCES

2. The preparatory work in Geneva has revealed the close interdependence that exists in a country's defensive armaments between its land, naval, and aerial forces. The French Government have frequently had occasion to explain that this was a fundamental

principle of its policy of national defense, one importance of which results in particular from the geographical position of France—a power both continental and maritime and the metropolis of a colonial empire spread out over the whole surface of the earth.

The American Government do not wish to find themselves compelled in London to raise any questions relating to the limitation of land and aerial armaments, but they can not conceal the fact that the tonnage required to meet the needs of their naval defense is narrowly, related to the needs of their land and aerial armaments, computed in accordance with the methods laid down by the preparatory commission at its last meeting. Were the decisions of the latter commission again to be put in question, the particulars they will afford as regards to naval armaments would become utterly valueless.

The French Government desires to state, moreover, that these difficulties will not prevent them from seeking any such solutions as would allow any powers desirous of doing so and, being of the opinion that they could do so without danger, to enter into a binding agreement as between themselves without awaiting the conclusion of the general convention for the limitation of all armaments.

NEEDS MUST MEASURE NAVY

3. Subject to the preceding observations, the French delegation will have no difficulty in making known the importance of a tonnage corresponding with national needs, France taking into account her geographical position on three seas, the extent of her colonial empire, with an area of 11,000,000 square kilometers (4,247,100 square miles), populated by 60,000,000 inhabitants, and a trade amounting to 32,000,000,000 francs (about \$1,280,000,000).

The existence of such an empire, the necessity of providing for the separate defense of each of the big communities it comprises, the numerous political and economical ties which bind those big communities to each other and to the mother country, the need to protect the integrity and the economic life of the latter, the task of providing for the security of more than 30,000 kilometers (18,630 miles) of seaboard, all told, impose upon the French Navy duties which the French Government can not ignore when they are called upon to apply Article VIII of the covenant.

The French naval budget is lower to-day than it was in 1914, and the same desire for strict moderation will continue to inspire France in the appreciation of her needs and in computing the forces necessary to meet them. In this respect the French Government will take fully into account any guarantee of security that might be set up and which would give full effect to the undertakings of international solidarity against an aggressor contained in Article XVI of the covenant.

MEDITERRANEAN TREATY URGED

4. Moreover, remembering the beneficial effects produced by the Pacific treaty on the conclusion of the Washington naval agreements, the French Government considers that in a narrower field, but one in which most of the European fleets are concerned, some progress might be achieved. Its communications through the Mediterranean are of importance for the British Empire, which the French Government by no means disregard. They are equally vital for France.

Might not an agreement of mutual guarantee and nonaggression be negotiated between the Mediterranean naval powers, to which those not represented in London would be in association, and, first and foremost, a power like Spain, the importance of whose naval interests in the Mediterranean need hardly to be emphasized?

The French Government propounded this question, declaring themselves in favor of the principle of such an agreement because they are earnestly desirous of bringing about reduction of naval armaments.

As the conclusion to this statement of general views, suggested to them by study of the agenda of the conference, the French Government desire to state that none of the difficulties to which they have thought it necessary to draw attention appear to them to be insuperable.

Convinced that all the governments that are to meet in London will enter upon these discussions with the same will as themselves to cooperate sincerely in giving effect to such means as may lead to the overcoming of every difficulty, the French Government rely upon the success of the negotiations that will pave the way for such a general conference for limitation and reduction of armaments as alone seems capable of fulfilling the common will of the nations to organize for peace.

BRITISH REPLY TO FRENCH MEMORANDUM ON LONDON NAVAL CONFERENCE

On January 12, 1930, the British Government made public its reply to the French memorandum published on December 26, 1929, covering the principles which will guide the French delegation at the 1930 London Naval Conference. The text of the British reply follows:

His Majesty's Government of the United Kingdom has given most careful consideration to the memorandum communicated to them on December 20, wherein the French Government explain their views upon various questions connected with the forthcoming London Naval Conference. His Majesty's Government much appreciate the frank and friendly attitude of the French Government in furnishing them with so comprehensive an elucidation of their point of view and in reiterating their assurance that they are determined to make the conference successful.

In issuing the invitation to the London conference, His Majesty's Government considered that it would not conduce to the success of the conference if the various governments were to entrench themselves before the conference opened in position, based perhaps on misunderstanding, from which they could not recede; nor in the invitation did His Majesty's Government refer to the obligations contracted under the covenant or to the question of national security and such considerations because they are clearly inherent in all disarmament negotiations and must be in the mind of every nation taking part in the conference.

One of the great advantages in the frequent meetings at Geneva is that governments have opportunities to understand each other's respective positions and problems and His Majesty's Government felt it unnecessary to recite elementary obligations, internal or external, but rather to concentrate upon supremely important problems which have

to be faced. Consideration at the outset in such friendly spirit of the French memorandum will, of course, be in the minds of all delegates.

It is true there may not yet have been devised complete machinery for sanctions to enforce the various peace agreements now in existence, but meantime much can be done, and His Majesty's Government place considerable trust in the fact that 56 countries have declared their intention to renounce war as a measure of national policy and to resort only to pacific means for settlement of international disputes.

URGES BEGINNING OF REDUCTIONS

Unless a beginning in the reduction of naval armaments is held to be justified by the measure of security already achieved through the covenant of the League of Nations, the quadruple treaty relating to the Pacific, the treaties of Locarno, signature of the optional clause of the statutes of the Permanent Court of International Justice by 33 countries, and finally by the treaty for renunciation of war, public expectation will be disappointed, a tendency toward expansion in arms, which is only too evident already, will develop, and nations will be taught once more in practice to trust only to military preparations for security.

His Majesty's Government earnestly hope the nations attending the London conference may by agreement on reduced naval strengths register their confidence in the great advance made since the war in the provision for national security by political agreement.

His Majesty's Government observe with interest the distinction drawn in the French memorandum between the pact of Paris and the covenant of the league. They would suggest, however, that the two documents may also be regarded as complementary, one of the other.

From that standpoint the pact of Paris by its renunciation of war as a national policy may be held by States which are members of the League of Nations to have completed the structure of peace which the more restricted language of the covenant had for the time left unfinished. His Majesty's Government accept fully and unreservedly all obligations of the covenant, which, however, must not be held to have involved delay in progressive steps for disarmament for which the pact of Paris is justification.

His Majesty's Government note the suggestion of the French Government that it is doubtless due to the absence from the Kellogg pact of any provisions for its methodical application that they have been deterred from contemplating any considerable reduction in naval establishment. His Majesty's Government desire to remove the error upon which this reservation rests. In response to better prospects of peace and of an international agreement, the British proposals as a matter of fact provide for a very considerable reduction in the strength which the British Empire has considered necessary in all categories of combatant vessels, from capital ships to submarines.

FOR LIMITS OF CATEGORIES

In Part II, section 1, of its memorandum, the French Government refer to a system of limitation of naval armaments by global tonnage. His Majesty's Government has consistently expressed preference for dealing with the problem of naval disarmament by strict limitation

of the types, tonnages, and guns of all categories of warships, since they feel confident any other method of limitation must tend to preserve those elements of competition and uncertainty which will be one of the express objects of the conference to eliminate.

The problem of naval armament involves not only the amount of tonnage but the use to which it is put. Nevertheless, His Majesty's Government has studied with great care the "transactional proposal" to which the French Government refer and are ready to discuss the possibility of some arrangement based on that proposal.

The French Government emphasize, in Part II, section 2 of their memorandum, that there is close interdependence between various defensive armaments of a country and give reasons why they regard this as a fundamental principle of their policy of national defense.

His Majesty's Government agree that problems of naval, land, and air disarmament can not be completely disassociated one from the other, but they do not take the view that no attempt should be made to deal with one unless all are being dealt with simultaneously. His Majesty's Government consider the approach to disarmament may best be facilitated by attacking the problem in detail as is now proposed in the naval conference.

In the end a complete disarmament agreement must cover the whole field of arms, and steady and continuous work will be required until that field has been covered. They therefore join the French Government in earnestly hoping that the conference will result in an agreement which will commend itself to all powers represented on the preparatory commission (of the League of Nations) and by facilitating the task of that body hasten the summoning of a general disarmament conference.

As regards Part II, section 3, of the memorandum, His Majesty's Government note with satisfaction that the French Government, while taking due account of the naval requirements imposed by the geographical position of France, will, like His Majesty's Government, continue to observe strict moderation in appraisal of their needs, and that the French delegation will have no difficulty in indicating the extent of the tonnage required to meet the needs of their country.

STIRRED BY MEDITERRANEAN PLAN

His Majesty's Government have learned with interest of the views of the French Government regarding the desirability of a treaty of mutual guarantees and nonaggression between the Mediterranean powers. They agree that the four-power treaty relating to the Pacific, which resulted from the Washington conference, exerted a happy influence upon negotiations of the Washington naval treaty.

His Majesty's Government would only point out at this stage that a treaty such as that suggested by the French Government appears to go considerably further than the Pacific treaty, above mentioned, which provided only for the summoning of a conference for settlement of controversies and for joint consultation in the face of aggressive action.

Inasmuch as all Mediterranean powers are members of the League of Nations, it would appear that facilities already exist for joint consultation in event of need. There is a great measure of security

in this, but His Majesty's Government will be glad to exchange views on the subject with all the powers concerned.

In conclusion, His Majesty's Government notes with particular pleasure the opinion expressed by the French Government that none of the problems mentioned in the memorandum amount to irremovable obstacles, and they share entirely in the confidence felt by the French Government that there will be cordial cooperation among the delegations to promote the great aims of the conference and that success will terminate their labors.

FIRST LORD OF THE ADMIRALTY ANNOUNCES BRITISH CRUISER POLICY

The First Lord of the British Admiralty, Mr. A. V. Alexander, speaking at Sheffield, England, on the evening of January 10, 1930, officially announced that the British Empire intended to propose reducing her requirement in cruiser strength from 70 to 50 at the forthcoming London Naval Conference. The Kellogg peace pact was mentioned as the factor which had so altered the situation that the admiralty considered it expedient in setting as its irreducible minimum of cruisers at 50 instead of the 70 considered necessary by Admiral Jellicoe at Geneva in 1927. The text of Mr. Alexander's above-mentioned address follows:

I want to acknowledge that up to the present the press in this country has maintained an attitude of great friendliness and helpfulness with regard to the forthcoming five-power conference. But with the emergence of some of the main problems to be considered, and particularly the problem of cruiser strength, I have observed a tendency for the press to ask "What is the attitude of the Admiralty with regard to fixing the minimum requirements of cruiser strength for the British Empire at 50 ships instead of the 70 ships asked for in 1927?"

Let me say at the outset that in decisions of policy on matters of this kind it is the government which is responsible and which must answer to the nation. But in view of the nature of certain questions which have been put in the press, I think it would be opportune for me, as First Lord of the Admiralty, to explain the Admiralty's views.

Our estimate of the defense requirements of the British Empire has been summed up in the policy of successive governments to His Majesty here and in the dominions, namely, a one-power naval standard.

In the matter of capital ships this has been very simply expressed in the form of parity with the greatest other naval power. This was the main achievement of the Washington conference. In the matter of cruisers it is not so simple, and this was the crux of the Geneva conference of three powers, which failed to reach an agreement.

CRUISERS IMPORTANT ISSUE

One of the most important aims of the London conference will be to reconcile our defense needs in the matter of cruisers with the requirements of an international agreement.

After the Washington conference, at which the question of cruiser strength was only to a limited extent touched upon, the Board of Admiralty advised the government of their views of the needs of the British Empire in cruiser strength.

The number, which is based on the needs of defense for our world-wide vital sea communication, was fixed at 70. That was the number which, had conditions remained the same, would be our requirement to-day.

But to-day we have to take account of the new situation which has arisen through the signature of the pact of Paris outlawing war by most of the nations of the world, including all the major naval powers, and not only by those who are members of the League of Nations but also by the United States, who, by their authorship of this pact, took their second great step in the practical solution of the world's need for assured peace.

With such powerful support for peace we feel justified in looking forward to a period in which armed conflicts need not be expected.

The Board of Admiralty, therefore, having regard to all the circumstances of to-day and especially to the pact of Paris and to improved world political relationships, are prepared to agree to 50 cruisers as the minimum needs of the empire up to the next date for a revision, which we expect to be near 1936.

I must emphasize that this figure is the lowest we feel can be fixed to meet even peace conditions in present world circumstances.

BRITISH RESPONSIBILITY ENORMOUS

The responsibility of the British Commonwealth, both imperially and internationally, including large commitments to the League of Nations, is enormous, and the navy is required again and again—as illustrated in the recent Palestine disturbances—to take both precautionary and effective action in carrying out our obligations to keep the peace in some parts of the world even when the major powers of the world are at peace.

We hope that international peace will be permanent, and that a further agreement in 1936 will confirm and extend the present agreement. But if, unhappily, the international horizon should become in the future less unclouded than it is to-day, it will be upon the Board of Admiralty to review their position and to make further proposals to His Majesty's Government.

The proposed reduction in the number of cruisers to 50 is, of course, dependent on agreement at the forthcoming conference on adequate limitation of projected building programs being made by other powers.

Our aim is to reduce existing commitments and to stabilize our position by mutual agreement with others, avoiding competitive building and the expenditure of excessive sums of money.

The naval conference upon which we are entering will probably be the greatest of its kind ever held in the history of the world and no delegates of the British nation can afford not to be impressed with the importance and the responsibility of the occasion.

In 1921 and 1922 at Washington we achieved an agreement with regard to capital ships, and on the assumption that we adopted a one-power standard we then conceded to America parity with regard to capital ships. That agreement still runs and ultimately our strength

of capital ships will be reduced to 15, but so far as we are concerned we should very much like to see, if replacements are to take place as they must take place, a capital ship which would be less expensive to build and to maintain than the ship involved in the maximum tonnage laid down in the Washington treaty.

READY FOR PARITY IN ALL CLASSES

There has never been an agreement with regard to the ratios of cruisers and destroyers. We said to America we were prepared to concede full and friendly parity between this country and theirs in naval strength in all the categories in addition to those agreed upon in 1921 and 1922.

At whatever point we think requirements will allow us to come down to, we should be quite willing for the other great English-speaking nation to take parity with us, ship for ship, and ton for ton, but the difficulty has been that after you have agreed on the general principle of parity there has not been any agreement as to how the total tonnage covered by the parity should be allocated and as to what size a ship should be built inside that tonnage.

The difficulty up to the present has been to get agreement as to what should be the proper equation to get effective parity between us and the United States.

That was the position when the Prime Minister made his visit to the United States. We hope now we shall arrive at a lasting basis of agreement not only on the question of parity between ourselves and America but also in regard to ratios between ourselves and other countries.

There are two other main categories, destroyers and submarines, which must come under review. The extent to which you can get very substantial reductions in destroyer provision depends upon the measure of success you can get in regard to reduction in submarines.

I have never hesitated to say that nothing would please us more from the humanitarian point of view than complete abolition of the submarine, but there are difficulties to get the consent of other powers with regard to proposals in this respect. At the same time it ought to be possible to have some measure of reduction.

It has been quite obvious that the feeling between ourselves and America has not always been of the best and since the war something has wanted doing. I am quite sure now that we are in for a more free and frank relationship than at one time was likely.

BRITISH LABOR BLOC ADVOCATES ABOLISHING ALL WARSHIPS OVER 10,000 TONS

Press dispatches from London on January 4, 1930, carried news to the effect that 77 Labor members of the House of Commons (about one-fourth of the present Labor government's strength) had on the evening of that date issued a statement advocating the abolition of all men-of-war of more than 10,000 tons displacement. The text of the subject statement follows:

The five-power naval conference which meets in London January 21 will provide means of testing the importance which signatories of the

Kellogg pact attach to the present possibility of renunciation of war as an instrument of national policy.

Abolition of battleships would be a substantial step toward making that pact a reality, and this would not only result in appreciable reduction in expenditure on naval armaments but would, of itself, insure the success of the conference.

SHIP VALUE DISCOUNTED

We note a growing feeling, even among naval experts, that fighting ships of more than 10,000 tons are no longer necessary, and we therefore urge the delegates of the British Labor government at the conference to make the abolition of battleships and warships of more than 10,000 tons one of the principal aims of their deliberations.

In the event of a minority of the great powers not agreeing to the proposed abolition of battleships, we urge our delegates to consider whether, in view of the advance of science and the fact that our danger lies in the possibility of attack by air, rather than attack by sea, Great Britain can not take the lead and announce that she will not in the future lay down any warships of more than 10,000 tons.



CURRENT ARTICLES OF PROFESSIONAL INTEREST

- What Breeds China's Civil Wars. By Wen Ying Peng. (Current History, January, 1930.) **D501.1 N53**
- Nations of the Pacific Conference. By George H. Blakeslee. (Current History, January, 1930.) **D501.1 N53**
- The Permanent Bases of French Foreign Policy. By Jules Cambon. (Foreign Affairs, January, 1930.) **AP2 F71**
- Dutch Rule in the East Indies. By M. W. F. Treub. (Foreign Affairs, January, 1930.) **AP2 F71**
- The Publication Policy of the United States Department of State. By Tyler Dennett. (Foreign Affairs, January, 1930.) **AP2 F71**
- The London Naval Conference:
- I. As viewed from Europe. By Hector C. Bywater.
 - II. As viewed from Japan. By K. K. Kawakami. (The Nineteenth Century, December, 1929.) **AP4 N7**
- Dollars and Sense of Naval Reduction. By William Hard. (World's Work, January, 1930.) **AP2 W92**
- The Fleet of the Future. By Capt. J. V. Creagh (D. S. O.), R. N. (Journal of the Royal United Service Institution.) **U2 J6**
- The Transatlantic Race. By Isaac F. Marcossou. (The Saturday Evening Post, January 18, 1930.)
- Is the Battleship Obsolete? By Brig. Gen. Henry J. Reilley, O. R. C. (Liberty, January 25, 1930.)





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BRIEF REVIEW OF INTERNATIONAL AFFAIRS

BRITISH EMPIRE

FIVE-POWER NAVAL CONFERENCE

The addresses of the heads of the various delegations at the opening of the conference contained very little outside of the usual generalities and flowery remarks befitting such an occasion. There were no startling proposals such as opened the Washington conference. Mr. Tardieu stressed the preliminary nature of the conference, indicating that any agreement would be merely preliminary to further definite action by the league preparatory commission on disarmament. Mr. Stimson implied that too much need not be expected, as the ultimate goal of naval disarmament can only be obtained in a step-by-step process, but that some result from the conference was demanded by the people.

Mr. Wakatsuki stated that Japan was prepared to go, in conjunction with other powers, to the limit in naval disarmament and is ready to effect not merely limitation but actual reduction.

The first public session of the conference was held on January 30, 1930. The French compromise proposal was made public on January 31. Secretary Stimson issued a public statement of certain American proposals on February 6, and Prime Minister MacDonald issued a statement on February 7, setting forth certain British proposals, the texts of which are quoted in this issue of the BULLETIN.

THE BRITISH NAVY

On February 1 the First Lord of the Admiralty announced that in addition to cancelling the construction of the cruisers *Surrey* and *Northumberland*, 12 more vessels have been dropped from the 1929-30 program as follows: 2 cruisers (1 of 7,000 tons and the other 10,000 tons with 8-inch guns), 4 destroyers, 1 netlayer, 2 sloops, and 3 submarines. The 1929-30 program, as reduced, now consists of 1 cruiser, 4 destroyers, 4 sloops, 3 submarines, and 1 flotilla leader, a total of 13 vessels. These are all paper ships, no actual construction having been undertaken. Such cancellations, it is believed, are due entirely to economic reasons and not to any attempt to influence the proceedings of the conference.

THE BRITISH GOVERNMENT

On January 27, the House of Commons, after an eight-hour debate, ratified the British Government's signature of the optional clause of the statutes of the Permanent Court of International Justice.

On January 22 the British Foreign Secretary, Mr. Arthur Henderson, announced in the House of Commons that the British Government had been compelled to protest to the new Soviet ambassador against the renewal of Communist propaganda in England, this being a direct violation of the agreement made between the two countries at the time of the British recognition of the Soviet Government. No further action than this protest will be taken by the British Government at present.

The amendments to the coal mines bill, which the Labor Government was forced to make in order to meet the Liberals' objections, have recently been published. They include, among other provisions, postponement of the reduction in miners' working hours until July and compulsory amalgamation of collieries. In December the Liberals joined the Conservatives against this very important bill with the result that the Labor Government barely missed defeat on this measure with a small majority of eight votes.

The recently formed economic advisory council will consist of five members of the cabinet and other persons chosen by the Prime Minister because of special qualifications. The council will have the Prime Minister as chairman and its chief duties will be to advise the Government on matters pertaining to trade, industry, and economics.

The "Empire free trade" scheme, sponsored by Lord Beaverbrook and Viscount Rothermere and their London newspapers, and by which it was planned to give the British Empire an economic unity similar to that of the United States, was completely defeated after a long debate in the House of Commons on January 29. The plan was particularly unpopular in Australia and other parts of the Empire where tariff walls have been erected to protect local interests.

AUSTRALIA

Trouble recently has developed in the Australian coal mines where the striking miners have formed themselves into armies, carrying on marches and other military demonstrations. The Premier of New South Wales has protested to the Federal Premier (Mr. J. H. Scullin) against the drilling by the miners as contrary to the defense provisions of the Australian Constitution.

INDIA

The present unrest in India is causing considerable anxiety in Great Britain.

On January 26, known in India as "Independence Day," demonstrations were held in Calcutta and other large cities, and at least one serious clash occurred between the Communists and the Nationalists, in which the latter's flags were pulled down and Red flags hoisted in their place. The principal slogan at all these meetings was "Down with the Union Jack!" but practically all of the demonstrations were easily handled by the police.

On January 30 there were also several clashes between Moslems and Hindoos at Dacca. The leader of the Indian independence movement, Mahatma Ghandhi, published on January 30 a list of the reforms which he considers essential if political peace is to be achieved in India. These reforms include a reduction of 50 per cent of land taxes and making these subject to legislative control, a protective tariff on foreign cloth, the discharge of all political prisoners, permission for all Indian exiles to return, and others.

PALESTINE

On January 29 it was reported that the British Government intends to base its future policy in Palestine on a new interpretation of the Balfour declaration which will include the establishment of a Palestine Parliament, and the restriction of Jewish immigration. This decision is said to be the result of conversations in London between officials of the British mandate administration and members of an Arab delegation.

At a recent conference held at Haifa, attended by 59 delegates, including eight Christians, it was decided to organize an Arab labor union, comprising Palestine, Transjordan, and the Hedjaz and Iraq. Resolutions adopted at this conference called for the complete independence of Palestine and the executive was authorized to proclaim a general strike when necessary and to publish an Arab labor paper.

SOUTH AFRICA

Unrest among the natives continues and is the cause of much anxiety to the white population of the Union of South Africa. The recent rioting followed the first native outbreaks of last November, when the police arrested about 600 natives at Durban. Trouble has now spread from Carnarvon, Cape Colony (where the mayor and other Europeans were injured recently), and to East London, also in Cape Colony. At the latter place native railway workers threatened to strike unless their wages are increased, or a commission

appointed to inquire into their demands. On January 19 a riot of about 500 natives broke out near Fordsburg, resulting in 14 deaths and many injuries. On January 20, the Government sent airplanes to bomb various rebellious tribes of natives in Northern Transvaal.

CHINA

Latest reports indicate that conditions around Wuchow (100 miles west of Canton) are again unsettled due to the appearance of Kwangsi troops in that area.



New outline map of China

A recent incident at Hankow threatens to bring the question of extraterritoriality to a head. A British naval officer driving an automobile ran over and killed a Chinese coolie. He was held at the Chinese police station until a signed agreement was given by the British consul general to produce the naval officer as a witness at the investigation by the Chinese.

The new outline map of China here shown incorporates changes in the Provinces of that country.

The changes involve a rearrangement of the boundaries of some Provinces, and changes of names of both Provinces and capitals in some cases. The following outstanding changes are noted:

Chihli Province is now called Hopei,

Peking is changed to Peiping,

Ten hsien districts of Chihli to the north of the Great Wall have been incorporated with Charhar, which gave up five districts to Suiyuan.

Kokonor has been made into a Province with Sining as the capital and known as the Province of Tsinghai.

The district south of Gobi Desert and north of Kansu has been made into another Province to be known as Ninghsia, with Ninghsiafu as capital.

Jehol, Suiyuan, Charhar, and Saikang have been made into Provinces with Chengteh, Kweisni, Kalgan, and Kanting, respectively, as provincial capitals.

FRANCE

The Tardieu government fell on February 17, 1930.

The finding of a second eyewitness to the recent bold daylight kidnaping in France of Gen. Alex. P. Koutiepoﬀ, White Russian military leader, prompted the *Echo de Paris*, powerful Right newspaper, to demand a rupture of diplomatic relations between France and Soviet Russia.

For the year 1929 France reports a decrease of more than \$50,000,000 in exports from the preceding year, an increase of \$193,000,000 in imports, with an unfavorable balance of nearly \$330,000,000.

The American ambassador to France has instituted an important preliminary inquiry to ascertain whether some common basis exists for the negotiation of a Franco-American commercial treaty. With the constant development of the trade relations between France and the United States, American business men are finding it very difficult to carry on under the makeshift *modus vivendi* now governing their commercial relations. The lack of a definite trade accord, such as the United States has with Germany and many other nations, is a real handicap to American interests.

The Franco-Turkish treaty of friendship, conciliation and arbitration which was signed at the French foreign office by the Foreign Minister, Aristide Briand, and Fethi Bey, ambassador from the Angora Government, will doubtless assist in stabilizing the situation in the Near East. Arbitration accord is held to mark a new era in relations between Paris and Angora.

THE FRONTIER DEFENSE PROGRAM

The Government has succeeded in having the Chamber of Deputies pass its frontier defense program. The program is to be completed in five years and carries the following appropriation:

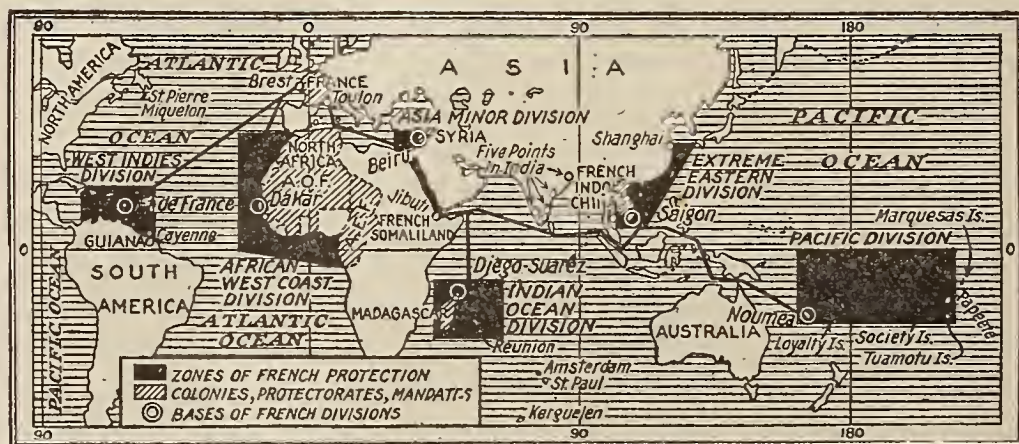
	Francs
For fortifications and artillery-----	2, 900, 000, 000
For antiaircraft material-----	400, 000, 000
Total-----	3, 300, 000, 000

The French press states that the aerial defense will be primarily for the industrial regions of the East.

THE FRENCH NAVY

The following naval construction program for 1930 has been approved by both houses: 1 cruiser, 6 destroyers, 6 first-class submarines, 1 submarine mine layer, 1 surface mine layer, 2 dispatch boats, and 1 net spreader.

The determination of France to regain her place as a maritime power has recently been given a more definite form by the announcement that, early in 1930, four naval divisions will be dispatched to the following stations: One division to the Indian Ocean; one division to the Far East; one division to the West Coast of Africa, based on Dakar; and one division to the Caribbean, based on Fort de



Colonial divisions of the French fleet

France, Martinique. In addition to the above, another division of four vessels was scheduled to sail on January 13 for a six months' cruise along the West Coast of Africa and in the Caribbean. The announcement of the above proposed dispositions was preceded by the statement that the new naval construction program had reached the point where these units could be spared for foreign service.

ITALY

The Italian naval budget for 1930-31 calls for an expenditure of \$77,682,032, approximately \$1,826,800 more than last year's. A good portion of this increase is laid out in higher rates of pay for the personnel of the Navy.

An interesting comparison of civil aircraft accomplishments in 1928 covered by Belgium, France, Italy, and Spain, is tabulated as follows:

Country	Air lines, miles in operation	Number of planes	Number of planes in use	Total mileage	Passen- gers carried	Mail, pounds	Goods, pounds
Belgium.....	370	14	10	229,321	7,864	6,993	232,636
France.....	14,743	860	241	4,531,439	19,698	287,447	2,549,437
Italy.....	5,150	1,000	54	1,236,913	15,590	-----	549,025
Spain.....	1,354	-----	9	73,082	1,027	-----	25,617

JAPAN

The Japanese Diet has been dissolved and a general election set for February 20. By this action the Government hopes to obtain a majority necessary for its existence which has already been endangered by the resignation of one cabinet member.

RUSSIA

PROPOSED CONTRACTS FOR SUBMARINES

The Amtorg Trading Corporation, sole representatives of the Russian import and export trade in this country, on January 12, 1930, approached the Electric Boat Co. on the subject of the construction of six submarines for the Russian Government. The Electric Boat Co. referred the matter of these proposed contracts to the State Department. As is customary in such cases the State Department forwarded the correspondence to the Navy Department for an expression of opinion in the premises.

The Navy Department's attitude in the matter may be summarized as follows: That there is no objection to the Electric Boat Co. undertaking the construction of submarines or other vessels for friendly foreign powers, as it is considered to be to the interest of the Navy and of the shipbuilding industry in this country to secure foreign work of this kind for our shipbuilders. Should the State Department approve the request of the Electric Boat Co., the Navy Department requests that it be kept informed by the contractors of the development of any special features of construction.

The policy of our Government toward trade relations with Russia, as announced by the State Department, may be stated as follows: To place no obstacles in the way of development of trade and commerce between the two countries, it being understood that individuals or corporations availing themselves of the opportunity to engage in such trade do so on their own responsibility and at their own risk. The Department of State has endeavored to reduce to a minimum difficulties affecting commercial relations. Visas are readily granted by American consular officials to Russian nationals, even if associated with the Soviet régime, provided the real purpose of their visit to the United States is in the interest of trade and commerce, and

provided that they have not been associated with the international revolutionary activities of the Bolshevik régime.

The American Government, however, views with disfavor the flotation of loans in the United States, or the employment of American credit for the purpose of making an advance to a régime which has repudiated Russian obligations to the United States and its citizens, and confiscated property of American citizens in Russia.

TWENTY-FIVE AMERICAN SHIPS SOLD FOR OPERATION IN RUSSIAN TRADE

The sale of 25 cargo vessels for operation abroad (between Vladivostok, Siberia, and Petropavlovsk, Kamchatka, Siberia; Black Sea ports and Leningrad; Black Sea ports and Vladivostok; and Black Sea ports and Persian Gulf ports), with privilege of transfer to foreign registry, was authorized by the Shipping Board November 13, 1929, to Johann G. Ohaol, an American citizen residing in New York. Sale was made in consideration of \$1,155,000, payable 25 per cent cash, with the balance covered by an irrevocable letter of credit payable one year from date of sale.

The vessels are to be taken from the Shipping Board's laid-up fleet, and none of them have been in active operation for approximately 7 years. The vessels are sold on an "as is, where is" basis, and it is provided that after one outward cargo of tinplate, agricultural machinery, steel and machine tools, with the stipulation that such cargoes shall be discharged only at Vladivostok and Petropavlovsk, the smaller type vessels of the group shall not again trade to or from ports of the United States for a period of 5 years, and that the larger type vessels shall be similarly restricted for a period of 10 years. Bonds in the sum of \$5,000 each for the smaller vessels, and \$35,000 each for the larger vessels, will be furnished by the purchaser as assurance for performance of these contract terms.

Press reports of February 4, 1930, state that officers and crews, 145 in all, have arrived in the United States preparatory to taking these ships to Russia.

SOVIET COMMENT UPON VISIT OF RUSSIAN FLIERS TO UNITED STATES

Russian newspapers commenting upon the visit of the Soviet airplane *The Land of Soviets* to the United States several months ago have been informing their readers through numerous articles that the journey of the Soviet fliers across the United States is like one long triumphant march. According to these articles, the success of the flight has not only delighted the American workers, who are glad to have representatives of the labor and peasant Republic in their midst, but it is also causing even the "dullest bourgeois brains" to begin to realize that Soviet technic and industry is not so backward as they have been led to believe.

The failure of President Hoover to invite the fliers to visit him in Washington has resulted in sarcastic allusions to the policy of the American Government with respect to Soviet Russia.

SOVIET WARSHIPS ARRIVE IN BLACK SEA

The Soviet battleship *Pariskaya Kommuna* and the cruiser *Pro-fintern* passed through the Dardanelles and the Bosphorus on January 17, 1930, and arrived at Sevastopol the next day.

An official announcement from Moscow states that the Black Sea visit was not part of the original program of the cruise, but it is explained that the vessels suffered damage to their machinery and that this necessitated a change of plans after leaving Naples, the warships making for one of the southern Soviet ports for repairs. The announcement speaks of the "hearty welcome" which Naples gave to the Bolsheviks and the friendly attitude of the Italians, who granted facilities for sightseeing and excursions.

The two warships left Kronstadt in November. It was announced at first that the cruise was for exercises only and mention was made of the collision between two destroyers as evidence of the lack of training of the crews. Later the cruise was described as having been undertaken to study the "military and politico-naval conjuncture in the Baltic, North Sea, Atlantic, and Mediterranean." The warships spent nearly a month at Brest refitting. If the Soviet Government retain the vessels in the Black Sea, it may bring forth an important alteration in the balance of naval power in that area.

It is interesting to note restrictions placed upon the movements of the sailors of these two vessels upon their visit to Brest in the latter part of December, 1929. It is reported that upon this occasion the French authorities prohibited the Russian crews from going ashore in the city, but placed at their disposal for the purpose of exercise a vacant peninsula 7 kilos from the town, which the Russians refused to utilize.

The French attitude appears to have been that of taking precautionary measures to restrict the circulation of undesirable revolutionary propaganda on the part of the Russians.

SPAIN

The resignation of General Miguel Primo Rivera, six years Dictator of Spain, and the resignations of his cabinet ministers were recently accepted by King Alphonso. The new Government was announced and took office on January 30, 1930.

The general impression prevails that the Government must get back to constitutionality and hold elections in the near future.

General D'Amaso Berenguer, who is head of the new Government, also takes over the Ministry of State and War. The other cabinet positions are filled as follows: Finance and Economy, Manuel Arguelles; Public Works, Leopold Matos; Interior, General Enrique Marzo; Navy, Vice Admiral Salvador Carvia; Education, The Duke of Alba; Labor, Pedro Sanoro y Ros de Orloano; and Justice, Jose Estrada.

No foreign minister has been appointed because the foreign office now functions as a secretariat attached to the premier's office. Several of the new appointees have been ministers before. Although several of the ministers are closely associated with political parties, their presence in the cabinet is not a sign that they are in office as representatives of those parties. The present cabinet is simply what in Spanish political jargon is termed a "cabinet bridge." Such political structures usually are only temporary in order to meet a critical situation such as the sudden resignation of the *primo*.

The students inaugurated a strike against the new Government, but the Duke of Alba settled this strike by adopting a conciliatory policy and ordering prison authorities to release all student leaders who had been detained by the dictatorship. It is claimed in some quarters that Alphonso forced the resignation of Primo Rivera for threatening to set up a Republic.

ARGENTINA

THE ANGLO-ARGENTINE TRADE AGREEMENT

In the early part of December, 1929, the National Chamber of Deputies of Argentina ratified the Anglo Argentina Agreement respecting trade. This agreement resulted from the visit of the British economic mission, headed by Lord D'Abernon, to Argentina last year. Briefly, the agreement provides that, during the two years following signature, Great Britain and Argentina will buy from each other products to the value of 100,000,000 Argentine pesos (about \$42,500,000 gold) and that each of the two Governments will take the necessary steps to open for the other a credit up to the amount to be expended as a result of the agreement. While it is expressly stipulated that Argentina's purchases under the agreement shall consist of "materials for the Argentine State railways and other national departments," no restriction applies to British purchases in Argentina.

Prior to the departure of the British mission from Argentina and before the Chamber of Deputies met, the terms of the agreement were made public and drew much unfavorable comment from the Argentine press which, in general, held that any advantage to be derived from the agreement was all in favor of Great Britain. It

was argued that Great Britain is dependent upon Argentina for a large amount of food products and raw materials, has been purchasing them at a rate in excess of that stipulated in the agreement, and, of necessity, must continue such importation. The agreement does not bind Great Britain to increase her purchases from Argentina so long as the value of such purchases equals the amount named in the agreement. On the other hand, it was asserted that Argentina would be obliged to purchase British goods, particularly railway materials, without the competition of other large industries throughout the world.

BOLIVIA AND PARAGUAY

At the present writing a decided lessening of the tension has been noted in the relations between Bolivia and Paraguay. The former, though still denying responsibility for the clash of January 16, has, through its Minister of Foreign Affairs, assured the acting chairman of the League of Nations council, August Zaleski, Polish Foreign Minister, that Bolivia desires only the peaceful execution of the Washington conciliation agreement, and will not disturb the peace of America. From the Paraguayan Foreign Minister, M. Zaleski received a message which stated that Paraguay had never departed from pacific procedure.

BRAZIL

According to reports from Rio de Janeiro, Dr. Mello Vianna, Vice President of Brazil, was, on February 7, 1930, shot three times while in the town of Montes Claros, where he had attended a political demonstration. All three wounds were in the neck but reports failed to state whether or not they were considered serious.

Montes Claros is in the State of Minas Geraes, about 700 miles north of Rio de Janeiro, and, owing to its remoteness, communications are not entirely reliable. Reports of the attempted assassination are conflicting. Some rumors indicate that Dr. Mello Vianna was shot from ambush while returning to his hotel from the political meeting, while other reports are to the effect that the shooting occurred in a banquet hall after a violent political discussion. It also was rumored that the disturbance resulted in the death of 5 persons and the wounding of 14 others, among whom were 2 women. The wounded were taken by special train to Bello Horizonte, capital of Minas Geraes.

Newspaper bulletins stated that, following the attack, the President had declared martial law throughout the State of Minas Geraes, but this was denied by the Federal Minister of Justice. That

official would make no statement regarding a possible declaration of martial law.

The officials of Minas Geraes profess to believe the sole responsibility for the attack rests with political enemies of the Vice President, but the view of the Federal officials is that it was a manifestation of a widely organized conspiracy.

COLOMBIA

Of interest to the United States is the announcement of Dr. Enrique Olaya Herrera, Minister from Colombia to the United States, as the Liberal candidate for President of Colombia.¹

If the utterances of Doctor Herrera can be taken as a true index of his feelings, his election undoubtedly would result in a better understanding between the United States and Colombia. During his political campaign, this candidate has stressed the need for improvement of Colombia's finances and the development of the country's resources. He has expressed a belief in the necessity for allaying the suspicion with which Colombians in general look upon foreign investors.

That Dr. Olaya Herrera has a difficult task before him can not be denied, even by the most optimistic of his followers. With the Conservatives in power and in complete control of the armed forces of the country, the budget and the election machinery, the difficulties which a Liberal candidate faces appear to be well nigh insurmountable, unless the solidarity of the Conservatives is shaken by dissension within the party. At the present time such dissension exists as the result of disagreements within the "political ring" which has controlled the Conservative Party and, consequently, the Government.

One aspect of Colombian politics which must not be ignored is the part played by the church. So great is this influence that rarely, if ever, have the Conservatives nominated a presidential candidate who has not been approved by the church, which, politically, is Conservative.

Last year, Vasquez Cobo, Colombian Minister to France, and a Conservative, returned to Colombia and announced himself as a candidate for the presidency. The archbishop announced that the church favored Cobo.

Receding from their usual attitude of deference to the wishes of the church, the Conservatives nominated Guillermo Valencia. This nomination was due largely to the efforts of President Abadia Mendez, a dominant figure in the Conservative Party, and for years an enemy of Cobo, whose aspirations he sought to defeat.

Cobo, apparently not discouraged by his failure to secure nomination by the Conservatives, announced himself as an independent

¹ Later press reports indicate that Herrera was elected President on February 9, 1930.—*Ed.*

candidate. He is said to be very popular, and some observers declare that he would receive 80 per cent of the votes should a fair election be held.

As a consequence of Cobo's action, the Conservative Party may be said to have two candidates, Valencia, the choice of the administration, and most of the dominant members of the party and supported by the majority of the press, and Cobo, supported by the church and generally popular with the people.

Into this situation a new factor was injected by the announcement of Dr. Olaya Herrera as the Liberal candidate.

Prior to the break in the ranks of the Conservatives, the Liberals apparently had given little thought to putting a candidate in the field, as past experience had demonstrated the futility of opposition to the political group, which controlled the government and decided elections. The present situation in the Conservative Party has led the Liberals to believe that they have a chance for success and they have been more active than in past years.

The archbishop has been attempting to restore harmony in the Conservative ranks, but the most recent reports indicate that his efforts have been attended by little success and the two Conservative candidates continue in the field.

Although the present state of affairs in Colombia may preclude the prediction that the election of the administration candidate is a foregone conclusion, there is still the possibility that the well-known tendency of the administration groups of certain Latin-American countries will assert itself, and that the opposition will be hampered or the administration candidate declared elected despite the vote polled by other candidates. In such an event, revolutionary activities, following the election, should occasion no surprise.

MEXICO

On February 5, 1930, Pascual Ortiz Rubio was inaugurated as President of Mexico.

About two hours after his inauguration, the new President was shot as he was en route to the palace to administer the oath of office to the members of his cabinet. The would-be assassin, who was in the crowd which lined the roads, fired six shots from a revolver at the President's car. One shot struck the President in the face and broke his jaw. The President's wife and niece and the chauffeur were slightly wounded.

An operation was performed on the President and the bullet and a splinter of bone removed from his jaw. His physicians report that the wound is not serious and that he should be able to assume his duties in a few days.

The President's assailant, Miguel Flores, was arrested immediately after the shooting, and, when questioned, declared that he alone was responsible for his act and that it was not prompted by any group or groups of persons opposed to the President.

There have been many arrests in connection with the affair but, up to date, reports do not indicate that investigation has seriously implicated any person other than Flores.

Owing to the fact that Flores was a follower of Jose Vasconcelos, defeated candidate for the presidency, there is a strong tendency, especially in official circles in Mexico, to see in the attack upon the President the result of a plot of the "Vasconcelistas." In other quarters the responsibility is placed upon Communist plotters.



Carded
M. S. V.

SOME BRITISH LETTERS ON NAVAL LIMITATION

CRUISERS

The statement of the First Lord of the Admiralty, Mr. A. V. Alexander, respecting the proposal to reduce British cruiser strength from 70 to 50 (see O. N. I., BULLETIN, January, 1930), brought forth public press statements from several sources, including British naval officers. Some of the views expressed are published herewith.

The following letter appeared in the London Times on January 13, 1930, signed by the Earl of Stanhope, a Conservative, Civil Lord of the Admiralty, 1924-29:

SIR: On December 18 last in the House of Lords I pointed out that as late as May, 1929, the naval staff had affirmed that 70 cruisers were the minimum number required for the necessities of the Empire, but that on September 17 you, sir, had published a statement that in the view of the Government and of the Admiralty 50 cruisers were then considered a sufficient force to meet all our responsibilities, and I inquired what had been the change of policy which had enabled this great reduction to be made. Lord Thomson, replying on behalf of the Government, assured me that "the policy of his Majesty's Government, so far as the security of the Empire is concerned, has not been altered in one single point."

It now appears from the speech of the First Lord of the Admiralty, reported in your columns to-day, that there has been a change of policy. What hope is there that the Nation, as you suggest, should be told, far more definitely and in greater detail than the First Lord has told us, by what reasoning and on what principle a reduction of 20 cruisers is justified when his own colleague in the cabinet is not aware that there has been any change of policy at all?

On the same occasion I asked the Government whether the 20 cruisers were to be deducted from the 25 allotted to the battle fleet or (allowing for 12 being absent normally while refueling or refitting) from the 33 allocated to the duty of securing freedom of sea passage to and from all parts of the Empire. To this Lord Thomson replied that it was impossible to give the information asked for, as these were facts and figures which were "the subject of negotiation at the coming conference." It appears, therefore, that not only the size and number of our ships are to be decided at the International Naval Conference, but also the manner in which they may be employed.

The London Times of January 14, 1930, contained the following public letter from Mr. Geoffrey Drage, a British ex-naval reserve officer and author of several works on economic and social problems:

SIR: The statement of the First Lord of the Admiralty on January 10, giving the Kellogg pact as the principal reason for the acceptance by

the Board of Admiralty of 50 cruisers instead of 70 cruisers (which was held to be the absolute minimum for our requirements by the Board of Admiralty up to May last, cp. Hansard, House of Lords, December 18, 1929), shows, as you say in your leading article, "the urgent need of a comprehensive and reasoned statement of the principles on which the Government is approaching the whole subject of the naval conference" (the Times, December 11, 1929).

Meanwhile, it is desirable to examine the First Lord's statement, and first let us take the Kellogg pact. I have pointed out in the Times (April 11) that war is still possible even under Kellogg pact, which recognizes the right of self-defence, and further (October 15), that in the debates in the United States Senate on the Kellogg pact all the speakers wished to be sure that they were not committed to any obligation whatever. But if England is to reduce her navy so that she can no longer protect her commerce by which she lives, what is required is a definite hard-and-fast guarantee that the United States will join in the protection of our trade and abstain from trading with our enemies. A distinguished admiral has stated that nothing less is of any use to us, and it is extremely doubtful whether any United States Government can or would give such a guarantee (the Times, October 15).

Next as to the 70 cruisers Lord Jellicoe pointed out at Geneva in 1927 that 25 are required to act with the battle fleet, and, allowing for an average of 12 to be under repair, there are left 33 to protect "on a typical day 9,500,000 tons of British shipping over 80,000 miles of sea communications" (Lord Beatty, House of Lords, Hansard, December 18, 1929).

Putting on one side the question how it is proposed to allocate the 50 cruisers, one asks why was that number chosen? The answer given is "for the sake of parity with the United States." But article 8 of the covenant of the League of Nations provides for a reduction of forces "to the lowest point consistent with national safety taking into account the geographical situation and circumstances of each State," and it has been shown in your columns (the Times, December 6, 1929) that, according to the French, the proportion of defense required by the geographical situation and trade circumstances of the scattered British Empire as compared with those of the more concentrated United States is as 10 to 4.2. The demand, therefore, of the United States for numerical parity is a demand to place her in a position of superiority which she could not claim under article 8 of the covenant and which other nations who are members of the league might be slow to admit. In any case, there is no need to overestimate the value to be attached to agreements arrived at at international conferences. It is sufficient to record that such agreements were continually broken in the nineteenth century, e. g., as to Turkey, and in the twentieth century it is only necessary to mention The Hague Convention and Belgium before the armistice, and the cases of Fiume, Memel, and Vilna since that date. In fact, as you, sir, have pointed out, the Kellogg pact "did not in itself create a new situation" (the Times, January 11).

The most important point, however, in connection with the 50 cruisers is that nothing is being done to give us that number. Lord Beatty pointed out in the House of Lords on December 18 that only

24 of our existing cruisers will remain in 10 years' time. It takes three years to build a cruiser, and therefore it requires a building program of 26 in seven years, or about four a year to give us 50. We have been told that the 1928 program is suspended and that the 1929 program presented in March last is also suspended (Hansard, December 18, 1929). It is therefore submitted that an immediate statement by the Government is required to clear up the position before the conference meets, and that, failing a satisfactory statement, the public should insist on the immediate building of four cruisers to comply with the number of 50.

It is of course, not a party question. Indeed, the record of the party politician on this subject makes one think that he is, as Voltaire said of the prophet Habakkuk, "capable de tout." In January, 1924, just before leaving office the Conservative First Lord of the Admiralty stated that—

"To meet the requirements of our fleet and the protection of our commerce we should have to lay down 52 cruisers in the course of the next 10 years, in other words an average of five a year." (Hansard, January 21, 1924.)

The Labor Government which succeeded laid down five in 1924. The following Conservative Government, which came in with a majority of 200, laid down four in 1925, three in 1926 and 1927, two in 1928, and proposed to lay down three in 1929.

Looking, therefore, at the fact that the 114 cruisers were insufficient for our needs in 1914, and at subsequent developments, Lord Beatty is more than justified when he speaks of the apprehension and dismay with which the present position is viewed by experts (Hansard, December 18), especially as our affairs in this regard are being conducted with much of the secret diplomacy which was so strongly condemned a few years ago.

Following is a letter published on January 17, 1930, in the London Times from Commander Stephen King-Hall, R. N., retired. Commander King-Hall is on the staff of the Royal Institute of International Affairs, and was intelligence officer of the Mediterranean Fleet, 1925-26:

Sir: The speech of the First Lord of the Admiralty, upon which you comment in your leading article of January 11, is, I believe, the first strictly official confirmation of the fact that the Board of Admiralty have been able to inform the Government that a cruiser strength of 50 ships will be sufficient to meet British requirements for security. Your readers will recollect that in 1927 the corresponding figure was 70 ships, and there is a proper desire on the part of the public to know, I quote your own words, "By what reasoning and on what principle so large a reduction is justified."

May I submit an explanation, because it seems of paramount importance that the agreements which all men of good will hope and pray will emerge from the deliberations of the forthcoming conference shall have behind them the intelligent support of public opinion? If the agreements are not indorsed by the public as well as signed by the delegates their value in times of stress will be doubtful. The public can not indorse an agreement unless they know what is involved in that agreement. Your readers should understand the following

facts. In considering the strength of the British fleet a naval officer looks at the matter from two points of view. One of them is commonly called "absolute requirements" and the other "relative requirements." Among the absolute considerations the following factors find their place:

(a) The Navy has been our first line of defense for centuries and may still be that safeguard 50 years hence.

(b) It takes much longer to train naval personnel than to build naval ships.

(c) Personnel can not be trained without going to sea in naval ships.

(d) When a certain level of reduction and slowness of replacement of material has been reached it becomes very difficult to expand rapidly if a crisis such as the failure of the peace pact made expansion necessary. For instance, armor plate and gun-making plants must either receive orders or subsidies, or close down.

There are many other points of this nature, but they may be summarized in the statement that from the absolute point of view it is arguable that to-day and for a long time to come the safety of the British Empire depends primarily upon the existence in an efficient condition of a sea-fighting organization, and that if the men and ships which compose it are reduced in numbers below a certain level the organization begins to lose essential qualities. One may reduce one's domestic staff to a cook-general or have no servants at all, but there is no equivalent in naval armaments to the charlady who comes in by the hour.

So much for the absolute point of view. The relative requirements proceed from a totally different base. We may start with the truism that if by some miracle every foreign warship disappeared to-night the Royal Navy could immediately be reduced to the level of a police force, since the primary functions of warships is to fight their kind. It is not believed in official circles that the above-mentioned miracle is likely to occur in the near future, and, from the relative requirements point of view, the situation has to be considered over a period of, say, 10 years. Sufficient unto the decade are the problems thereof.

In considering the relative requirements for 10 years the naval officer says to himself: "Making every allowance for any reductions in foreign navies which appear possible during this period—I note that the French Government have a penchant for submarines and that the Japanese seem to want more cruisers—what is the minimum size of navy with which I can obey the orders of the Government if I am directed to undertake naval operations during the next 10 years?"

I hope, sir, that if your readers have had the patience and you the generosity to follow me up to the point, it will be now clear that in deciding upon the final figures of naval strength it is necessary to seek a compromise between absolute and relative requirements. It will depend upon the political situation, domestic and international, whether the compromise leans toward the absolute or the relative figure. Moreover, when the balance had been struck by the naval staff it may again be modified by the Government, who may deem it advisable in the interests of world peace that definite risks shall be taken with imperial security both from the absolute and the relative point of view.

In 1927 absolute requirements were allowed great influence while it was judged by the Government of that time that naval requirements

should not be heavily subordinated to political considerations. A cabinet containing Mr. Bridgeman and Mr. Churchill will perhaps take a more pessimistic view of the value of the peace pact than will the present cabinet. The result of the interplay of forces in 1927 was 70 cruisers. In 1930 relative requirements have been allowed more weight than in 1927, while political factors, of which the MacDonald-Hoover conversations were an index, are well to the fore. The usual compromise has emerged as a figure of 50 cruisers.

I submit, sir, that is the explanation of the 50-70 conundrum. It seems important that the voters should realize that the real problem is as follows: How far short of its real needs in war can the British Navy be kept during the next 10 years, in the hope that there will be no war during that period? In accepting 50 cruisers we are showing our faith in the value of international agreements as a means of security. It is right that we should lead the way in taking a risk for peace, for only a great power can do a great thing, but this unprecedented departure from our traditional naval policy will lose much of its value if the public in whose name it is made do not realize what they are doing.

The London Times of January 14, 1930, also published the following public letter from Rear Admiral T. P. H. Beamish, R. N., retired, a member of Parliament. Admiral Beamish commanded H. M. S. *Invincible* in the battle of the Falklands and he was also present at Jutland. He retired in 1922.

SIR: Your leading article of Saturday last must surely have the full approval of all naval and informed public opinion; in particular your concluding remarks that Mr. Alexander's statement on the cruiser question only makes "the more urgent a comprehensive and reasoned statement of the principles on which the Government are approaching the whole subject matter of the naval conference." Alone among the five nations we are entering the conference without a clear-cut and definite naval policy. The Government surely can not escape from their promise of complete publicity so widely scattered and so clearly laid down in Labor and the Nation.

Mr. Alexander has said: "The Board of Admiralty, therefore, having regard to all the circumstances of to-day, and especially the pact of Paris and improved world political relationships," agree to 50 cruisers as the minimum needs of the Empire. With great respect, I have grave doubts if the present Board of Admiralty or any past board could base their professional views of our naval requirements on such an agreement as the pact of Paris. It would seem they have been directed to readjust their professional view of our requirements of cruisers in accordance with a political, unwarranted, and hypothetical assumption of national security.

If it could be said that war was impossible defense forces could be reduced to a size which would only admit of their exercising the functions of a police force. The argument of the First Lord of the Admiralty that war, while still possible, is less likely has no bearing whatever on the minimum strength necessary to avoid defeat by sea.

What are the circumstances that have led the Government to make this momentous decision? I submit that no single reason has been

advanced which justifies the reduction from 70 cruisers to 50. The Government statement is obscure and lacking in sincerity, where it is not jejune and misleading.

The following letter published in the London Times on January 18, 1930, is by another British naval officer who is a Conservative member of Parliament, Commander Archibald R. J. Southby, R. N., retired. Commander Southby was a member of the Naval Armistice Commission, 1918-19, also of the Naval Inter-Allied Commission of Control, 1919-20. He retired in 1926.

SIR: The speech of the First Lord of the Admiralty, as reported in the press on January 11, makes it abundantly clear that there has been a change of naval policy since the present Government came into office, whereby the minimum number of cruisers required for the service of the British Empire has been reduced from 70 to 50. It is for the public to consider on what exact grounds this reduction of 20 in the total number of our cruisers can be justified.

It is not, nor has it ever been, suggested that any alteration is contemplated in the principle laid down that the requirements of cruisers for purely fleet purposes are five for every three capital ships. Since we are at present allowed 15 capital ships, it is obvious that 25 cruisers must be reserved for fleet purposes alone.

The number of cruisers required for the protection of commerce is governed by the length and number of the Empire's trade routes, which can not be altered by any question of policy, even if put forward by a Socialist Government. This number is constant, and has, as a matter of fact, remained at practically the same figure—namely, 45—throughout our naval history. If the volume of our Empire trade expands, as we hope it will, the number might indeed have to be increased. There can, therefore, be no justification for any reduction in the number of our trade-route cruisers. On the other hand, the number of our battle-ships is a matter which is governed by policy, and consequently it might reasonably be assumed that a change in policy would reduce our battle fleet and thereby reduce the number of cruisers required for its service.

I suggest, therefore, that if the First Lord of the Admiralty seeks to justify the large reduction of 20 in the number of our cruisers, on the grounds of policy alone, he can only do so because he expects to reduce materially the number of cruisers required for the battle fleet. It is obvious, however, that the whole 20 can not be taken from the battle fleet, and that some must come from the trade routes, where reduction is indefensible. The British Empire has a right to explicit information on this vital point.

Writing under the caption Parity of Cruisers the following public letter from Vice Admiral S. R. Drury-Lowe, R. N., retired, appeared in the London Times on December 23, 1929. Vice Admiral Drury-Lowe was attached to H. M. S. *Calliope*, during the 1889 hurricane at Samoa, and served in the Mediterranean, German East Africa, the Dardenelles, and in the Grand Fleet during the World War:

SIR: * * * it is well in discussing the question of parity to understand the American point of view. America does not require parity, or anything like it, to protect her shores, neither is the security of food supplies the vital matter it is for us. She demands parity to insure that her rapidly increasing sea-borne commerce, which is world-wide, should not be interfered with again in a war in which she is neutral. Having regard to what happened in the Great War I fancy we should do the same in her case. Anyway, as we have agreed, in accepting parity, to rule out the possibility of war between us, the question of possible ratios of strength as between our two navies is no longer a matter of importance. What is important is the question of America's attitude toward a state that violates the Kellogg peace pact by going to war after refusing pacific settlement, which, as a signatory of the pact, is the only war in which we can be engaged in the future.

Another public letter from Vice Admiral S. R. Drury-Lowe, R. N., published in the London Times on January 22, 1930, is as follows:

SIR: In your issue of the 18th instant, Commander Southby observes that the number of cruisers required for the protection of commerce is governed by the length and number of the Empire's trade routes, and this number is constant. But the number of trade routes, though constant, is only one of the factors in the problem. The other is the number of cruisers that may attack commerce, and this factor is variable. Therefore, the number of cruisers we require to protect commerce will vary according to the number of possible enemy cruisers, and if these are reduced we can reduce, too.

So the most important question before the conference should be, "Who is the enemy?" As all the five powers, in ratifying the peace pact, have definitely renounced war as an instrument of national policy, it should be recognized that the only enemy in the future will be the breaker of the pact; and this danger can be guarded against just as well by the maintenance of relative strengths at low levels as at higher levels.

The London Times of January 22, 1930, contained the following letter from Vice Admiral J. D. Allen, R. N., retired. Admiral Allen commanded H. M. S. *Kent* at the battle of the Falklands. He retired in 1924:

Commander King-Hall sums up the situation very clearly when he says, "It is right that we should lead the way in taking a risk for peace." It is simply a question of how much risk we are willing to take, and how much faith we are willing to put in international agreements. We must remember that the British Empire was built up by men who took enormous risks, and it is very sad if that courage, initiative, and willingness to take risks has passed away. Our greatest admirals in the past never hesitated to take risks when circumstances demanded it, and circumstances demand it now. When we said 70 cruisers, we took some risk and showed some faith. When we say 50 cruisers, we take more risk and show more faith. The least we can do is to give the naval conference a fair sporting chance to reach an agreement."

The following very poignant letter from Admiral of the Fleet Sir Arthur D. Fanshawe, R. N., retired, was published in the London Times on January 24, 1930. Admiral Fanshawe was A. D. C. to Queen Victoria, 1895-1897, was commander in chief, Australian station, 1902-1905, and retired in 1917:

Sir: I see in the Times to-day that two flag officers, Vice Admiral Drury-Lowe and Vice Admiral J. D. Allen, have expressed their views on the naval situation of to-day. I hope, and indeed feel convinced that these views are far from being generally indorsed in the great service to which these officers belong, and that they are not held by the vast majority of the thinking men and women in our Empire.

The sum of these views appears to be to the effect that our long-considered and purely defensive cruiser policy is to be sacrificed and subordinated to political maneuvering by men in whose hands temporarily and very insecurely the destinies of our great Empire are intrusted, and who had not even the support of the majority of the electors of the United Kingdom at the last election. We can not afford to forget that the minimum force of 70 cruisers is that reported to be absolutely necessary by successive admiralties in the past for the purely defensive task of protecting our trade routes, upon the safety of which, in the unique and scattered position of the British Empire, our vital needs depend and our security against starvation and ruin, a terrible and dire alternative no other nation in the world has to face. What seems, I think, surprising to many is why all this fatal policy of tampering with and weakening our trade routes should be dreamt of, while an extension of the Washington treaty in regard to the huge and enormously costly battleships appears to be so invitingly open to all the great powers. Why strain at the cruiser gnat and swallow the battleship camel?

The London Times of January 24, 1930, also published a public letter from Commander Archibald R. J. Southby, R. N., retired, in which he also takes issue with Vice Admiral Drury-Lowe's previously quoted letter. Commander Southby was flag lieutenant to Admiral Sir Montague Browning, Grand Fleet, and North America and West Indian station, 1913-1918. He retired in 1920 and was elected to the House of Commons in 1928. His letter follows:

SIR: May I crave your indulgence and ask for a small space in your columns in order to comment briefly upon a point raised in the letter from Admiral Drury-Lowe, which appeared in your issue of January 22?

Referring to my letter of the 18th he states that one of the factors governing the number of cruisers required for the protection of the Empire's trade routes is the number of cruisers which may attack the commerce passing along those routes, and that if the number of possible enemy cruisers is reduced, we can reduce, too. This is really only a partial truth, since the more cruisers there are which may attack our commerce, the more cruisers we shall require to protect it; whereas the minimum number of cruisers which we require is not governed by the number of possible enemy cruisers, but entirely by the number and length of our trade routes and the volume of commerce passing along

them. These minimum requirements remain so long as there exists either one single cruiser which may attack our commerce or the possibility of so converting and arming a merchant vessel that she may serve the same purpose, because such enemy cruiser or raider may strike at any point on our widely scattered trade routes; and therefore it is obvious that, to insure the safety of our Empire trade, each trade route must be efficiently guarded, lest it should be the one singled out for attack.

I venture to submit, sir, that to suggest otherwise to the British public, at a time when the whole question of our naval strength is under discussion, is not only misleading, but mischievous?

Hon. Ronald Ross, member of Parliament, who served in France as a brigade major during the World War (military cross, and *croix de guerre*) replies to Commander King-Hall's letter on cruisers previously quoted, in the following public letter published in the London Times on January 25, 1930:

Sir: The conclusions which Commander King-Hall has come to in his letter, which appeared in your issue of January 16, are such that I can not suppose them to be typical of those held by naval officers in general, nor, I venture to add, by the British public. The interesting and able analysis which precedes these conclusions calls for little criticism, beyond saying that Commander King-Hall has treated the question so generally as to ignore the unique features of the British naval position (a) that if the free flow of commerce to our ports is interrupted even for a very limited time we starve, and (b) that the existence of the British Empire as a community depends upon the maintenance of sea communications between the many distant and scattered units which compose it.

The conclusions, however, seem to me both dangerous and unwarranted. To put them shortly, and I hope fairly, Commander King-Hall considers, first, that the British Navy can be kept short of its real needs in war in the hope that there will be no war in the period during which it is so kept, and, secondly, that we should show our faith in the value of international agreements as a means of security by taking the risk of maintaining a navy inadequate for our defense in war. As to the first conclusion, as long as war is possible, the frequency of wars has no bearing whatever on the question of what naval strength is sufficient for our defense. To maintain a navy which will be defeated in war is worse than maintaining no navy at all. For us any naval war would be a misfortune, but naval war lost would be destruction.

As to the second conclusion, we have already shown our faith time and again by naval reduction and the cancellation of ships ordered, without gaining any important adherent to this policy among the naval powers. Does any of us question the good will of the United States, and yet that country, which was instrumental in the achievement of the pact of Paris and to which naval defense is a far less vital matter, embarked simultaneously on the largest cruiser programme they have ever had.

May I suggest that such arguments as those used by Commander King-Hall can even harm the cause of defence by treaty? A most

distinguished Ulsterman, and therefore, I hope, one whose views will have equal weight with Commander King-Hall as they have with me, the late Mr. Massey, at that time Prime Minister of New Zealand, said in 1924:

"You say your Government stands for international coordination through an enlarged and enlightened League of Nations. I feel that I must reply to that by saying that it may turn out a pity that the league was ever brought into being if the defence of the Empire is to depend upon the League of Nations only. The very existence of the empire depends upon the imperial navy."

Mr. Massey goes on to deal with the Singapore base, whose abandonment was then being proposed on arguments somewhat similar to those employed to-day for reducing our cruiser strength from 70 to 50. In 1927 Lord Jellicoe laid down the figure of 70 as the minimum number of cruisers compatible with national and imperial security. Lord Beatty has recently repeated his argument. I have never heard it suggested that Lord Jellicoe was wrong, and the only excuse so far adduced in favor of abandoning this standard is that war is less likely now than then, a proposition which is doubtful alike in its truth and its cogency.

Vice Admiral J. D. Allen, R. N., retired, again discusses the changing naval situation and expresses hope for the success of the London conference in the following public letter published in the London Times on January 27, 1930:

Sir: I can not help feeling that the vast majority of the thinking men and women in our Empire are much more interested in hoping for the success of the naval conference than on the naval situation of to-day. Surely every loyal citizen in our Empire will want to support his Majesty the King when he said: "We all have varying needs which demand special consideration, but if each of us is equally determined to sacrifice some portion of our special needs as a contribution to the common good, I feel sure that your deliberations will confer a great and lasting benefit, not only upon the countries which you represent but upon mankind generally." If we really hope for the success of the naval conference, and if we are really determined to sacrifice some small portion of our special needs, we can not lay down any definite figures as "absolutely necessary" when the conference has only just started its work. The vast majority of men and women will attach more importance to the success of this naval conference than to any definite numbers of tons or guns or ships. Only one thing is "absolutely necessary," and that is the success of this naval conference.

The following public letter from the British Navy League (signed jointly by Cyril S. Cobb, chairman, and Commander H. M. Denny, R. N., retired, general secretary, of the league) was published in the London Times on January 27, 1930:

Sir: The letters in your issue of January 24, by Admiral of the Fleet Sir Arthur Fanshawe and Commander Southby, contain excellent answers to the arguments of those two Vice Admirals who propagand for the League of Nations Union. The long-continued endeavors of the "Union" and many other pacifist societies to persuade our

people to agree to great curtailment of our navy, without at the same time insisting upon simultaneous reduction of the forces of other powers, has had some effect upon the public and upon successive Governments; and our navy has accordingly been enormously reduced and the necessary provision of replacement vessels delayed or canceled.

We are glad to think that the Navy League has been instrumental in countering, to some extent, this propaganda for "unilateral disarmament" by publishing from time to time facts and figures of naval strengths and by continually emphasizing the vital necessity of the protection of our trade routes by cruisers and subsidiary vessels. For some years we have fallen below the 1927 minimum of 70 cruisers and we are likely in a few years' time to fall below even the new minimum of 50 cruisers, which the present Government have announced. Of the 54 cruisers built (at December 1, 1929) 24 are already out of date and become obsolete at the rate of six or seven a year in the immediate years to come. To replace them we have only four completing, none at all building, and no program of replacement for the future. The public is beginning to see through the fog of pacifist propaganda and, thanks to the press, is becoming better aware of our dangerous situation and at last realizing how their sea power (on which our whole defense and very existence depend) is being whittled down; and the public should insist on their representatives and Government commencing very soon a definite replacement building program, and so save this country and the Empire from the great danger of being almost defenseless in the future.

May we quote what was so well said by Admiral of the Fleet Earl Jellicoe:

"The sea is our life,
By the use of it the Empire was formed,
By holding it the Empire was preserved,
If we fail to appreciate its value the Empire will perish."

BATTLESHIPS

The following letter published in the London Times on January 10, 1930, is from Commander Stephen King-Hall, R. N., retired, and appeared under the caption Size of Battleships. He is also the author of one of the above letters on Cruisers:

SIR: The suggestion in your leading article of to-day's paper, that one of the most practical and agreeable consequences of the forthcoming naval conference might be an agreement to reduce the size of battleships will meet with a sympathetic reception not only from the taxpayer, who has to find £7,000,000 for the present monsters, but also from many naval officers, who are also taxpayers. At the same time it is proper to note that the problem is not quite so easy to solve as a taxpayer might imagine from reading your article. There is more in the matter than the overcoming of that "superstitious and sentimental reverence for excess" which you attribute to Washington and Whitehall.

You rightly point out that "there is a true minimum of bulk necessary to a battleship's accomplishment of its strategic purpose," and you seem to suggest that some figure between 10,000 and 15,000 tons would meet the case.

It can be argued that at the present time a "true" battleship can be designed on a 15,000-ton basis. I say "the present time" because the root of the difficulty lies in the fact that the air menace, and to a lesser but considerable extent the underwater menace, to the battleship is steadily becoming more acute. A battleship designed to-day must be planned so as to remain a "true" battleship during the next 20 to 25 years, during which development of aircraft is likely to be rapid. I do not claim the gifts of prophecy, but the recent achievements of the German *D. O. X.* make one wonder what load of bombs an escorted bombing plane could carry over a fleet in, say, 1940. To give a battleship reasonable immunity against 2,000-pound or even 3,000-pound bombs, 1,000-pound mines, and the newest forms of torpedo necessitates defensive and offensive weapons which bulk large in weight and space.

Moreover, the groaning taxpayer will be disappointed if he expects the cost of capital ships to decrease in proportion to their size. The new German battleship is probably the most expensive ship per ton in the world. If bombs, torpedoes, and mines were susceptible to limitation, the problem of reducing the size of the capital ship would be simplified; but I fear they are not.

The above-quoted letter from Commander King-Hall was answered in the *London Times* of January 16, 1930, by Admiral Mark Kerr, R. N., retired, a well-known naval writer, as follows:

Sir: With regard to Commander King-Hall's letter, the size of the largest warship necessary for strategic defenses must be decided by what size is necessary in order to be able to overhaul the largest merchant ship in the world in any weather, so that the navy can carry on the sole object for which it exists—namely, the protection of the lines of communication of a country or to attack those of an enemy. At a discussion on this subject several naval officers who had had experience of commanding cruisers in peace and war, and of direction of trade, came to the conclusion that 10,000 tons was necessary for this purpose, and that an 8-inch gun would outrange any gun that a merchant ship converted into a raider could carry.

If all countries would consent to these maximum sizes, the most expensive units would be done away with, and at the same time it would make no difference in the proportionate strength of different navies. Great Britain, which requires so many cruisers, will greatly benefit financially if the maximum size of the warship is reduced all over the world to 10,000 tons and the maximum gun one of 8-inch caliber.

With regard to the increasing power of the air, it is greatly to the advantage of any country that if a ship is disabled or sunk by the action of air vessels the casualty should be confined to one of 10,000 or less tonnage. A vessel which is damaged or whose speed is reduced by torpedo or bomb will be of no more use, for a very long period, than if she were sunk, and the amount of docks to repair big ships is very limited in any country.

On January 17, 1930, the *London Times* printed the following letter from Admiral Sir Douglas R. L. Nicholson, R. N., retired, in which he makes particular reference to the "revolution" instituted in

British naval circles by Lord Fisher. Admiral Nicholson served in the Grand Fleet as a captain and rear admiral, 1914-1918:

SIR: A recent biography has recalled the all-pervading sense of disorder the navy experienced when Lord Fisher was applying his "revolution" to it (the term is his own; letter to Lord Esher, April 19, 1908), and the present poignant moment for the navy is the inevitable outcome. The effect of that revolution was to substitute a dreadnought competition for the maritime supremacy then (1904) enjoyed by the British Empire with such power that rivalry at sea had ceased.

Fisher's revolution has run its course, and the result is our present unhappy position. We seem to have given up our sovereign right to decide what is necessary for national security, and to have referred the strength of the royal navy to an international conference. Revolution has come back to its starting point, and the British Empire, in a maritime sense, has to begin all over again, or die.

The above letter from Admiral Nicholson was replied to by Vice Admiral Wilfred Henderson, R. N., retired, in a public letter printed in the London Times on January 21, 1930, in defense of Lord Fisher's revolution, quoted as follows:

SIR: May I ask you to allow me the courtesy of your columns to reply to Admiral Nicholson's attack in your issue of to-day on what he calls Lord Fisher's "revolution"? He uses this word detached from its context, which he merely mentions, and suggests by his quotation marks a meaning that implies discredit on the achievements of that great man.

I was closely associated with Lord Fisher during the period in which he introduced so many much-needed reforms into the navy. I was on his personal staff at the Admiralty, and was secretary of his committee of distinguished naval officers, ship designers, and shipbuilders who evolved the dreadnoughts, which Admiral Nicholson seems to consider were a crime against the world. He ought surely to know that the naval supremacy we held in 1904 was slowly but surely being overhauled by Germany and that had it not been for Lord Fisher's genius in checking this process by introducing a brand new and unexpected departure in capital ship design, the German fleet in 1914 would have been in a position to have faced us at sea with very good prospects of success. It is sheer misrepresentation to say that "rivalry at sea had ceased." I was naval attaché at the British Embassy, Berlin, when war broke out and for a year previously, and I can assure Admiral Nicholson that rivalry, far from having ceased, was then at its hottest.

But how "Fisher's revolution" can be indicted as the cause of our "present unhappy condition" is a process of reasoning which I confess my inability to follow. That Lord Fisher should be blamed for next Tuesday's naval conference (he has been dead for a decade) is a conclusion too astounding to be taken seriously.

Admiral Nicholson seems to have forgotten the existence of the United States of America, and the solid fact that our maritime supremacy no longer belongs to us but has passed—by the power of the purse—to our cousins across the water, to whom the greatest honour is due for deciding not to make tyrannous use of their poten-

tially overwhelming position and for consenting to sit down at a conference table with their parent State, with whose naval policy in peace and war they have never been in agreement.

With reference to Prime Minister Ramsay MacDonald's press interview in January, 1930, in which he expressed hope of eventual abolition of battleships, the following letter, from the American journalist, Mr. Frank H. Simonds, to the editor of the London Times was published in that paper on January 20, 1930:

SIR: For all Americans arriving for the naval conference nothing seems more surprising in British comment than the emphasis laid upon the battleship detail in the forthcoming discussions to the comparative exclusion of all other technical details. This surprise arises from the perhaps easily explicable detail that in the United States, by contrast, quite the same concentration has been discoverable upon the cruiser question.

But, in view of the British interest, I venture to think that a certain measure of interest may attach to what may be described as the naval and congressional views in respect of the capital ships, the views held by our own naval experts and bound to find a very strong support in the Senate, which must eventually ratify or reject any treaty made at London.

In contemporary British discussion I find several concrete proposals—namely, to abolish, to reduce in size and armament, to cut in numbers, and to postpone replacement. As to the proposal to abolish, that has already been very definitely excluded by the public statement of the chief American delegate, who has affirmed that, for his country, the capital ship remains the core of the fleet. This view is founded upon the technical conception that fleets are always divided into combatant and auxiliary categories; that, if the battleship were abolished, the cruiser would become the combatant unit and cruisers would be replaced by merchant marine. Since, in such event, the United States, because it has but a relatively small merchant fleet, would be placed in a condition of hopeless inferiority, all notion of abolition has been excluded.

In the matter of reduction of size, decisive opposition arises from the fact that American naval experts view the large battleship as the sole means of insuring defense of the Philippines. By the treaty of Washington we agreed not to expand our relatively inadequate defenses in those islands; we have therefore to meet the problem of defense by sending our fortresses there. And for this purpose, our naval advisers maintain, the large battleship, 35,000 tons, and the 15-inch guns alone fulfill the requirements.

Reduction of numbers of battleships meets no such fixed objections, founded upon questions of policy and strategy. I conceive that little objection would be encountered to any proposal for a very considerable reduction of the number of capital ships provided there were no disturbance of the ratios of the Washington treaty.

As to the postponement of replacement, the now familiar project for a naval holiday in capital ships, it must be said that here, again, there is no immutable opposition. But the question is not so simple as might seem at first glance, because in the view alike of the naval experts

and the Senators interested in naval problems an antecedent necessity would be to establish some counterbalance to the *Rodney* and *Nelson*. In other words, the American view would necessarily be that the British Government should either agree to scrap the *Rodney* and *Nelson* or permit the United States, during the holiday, to construct two ships of equal power.

In a word, I am sure our representatives would be bound to maintain the view held powerfully at home that in capital ships the United States has not parity, but at Washington only obtained an acceptance of a process of parity, which, if applied until the expiration of the treaty, would result in a balance in fighting units. Merely to postpone all replacement now would in the American view postpone the arrival of parity in this category and perpetuate what in the American view is a present condition of decisive British superiority in the fighting line.

The foregoing letter from Mr. Frank Simonds was publicly replied to by Sir Charles Cayzer, Conservative member of Parliament (lieutenant, Nineteenth Hussars, 1915–1918) in the following letter published under the caption Parity in Capital Ships in the London Times on January 22, 1930:

SIR: To those who believe that the most substantial economies which are likely to arise from the London Naval Conference will be obtained by an agreed and reasonable reduction in the size of capital ships and caliber of guns, the concluding paragraphs of Mr. Frank Simond's letter in your issue of yesterday will come as something of a disappointment.

The completion of the *Rodney* and *Nelson* by this country has always seemed to be an obsession with certain American journalists, and this fact is all the more remarkable when the circumstances which gave rise to the building of these two ships are recalled to mind. It was the insistence by Japan at the Washington Conference on the retention in her fleet of the *Mutsu*, then running her trials, in addition to the completed *Nagato*, which added to her strength two post-Jutland battleships mounting 16-inch guns, which led the American delegation in their turn to insist on the retention by America of three post-Jutland battleships of the *West Virginia* class, also mounting 16-inch guns, in order to maintain the five-three ratio in capital ships. As Great Britain had at that time no ship comparable in fighting power to these ships of the American and Japanese Navies, except the *Hood*, which mounted 15-inch guns, and only partially incorporated the lessons of Jutland, it was therefore agreed by the conference that Great Britain should have the right to construct two new capital ships of equivalent value, and in due course this right was exercised when the keels of the *Rodney* and *Nelson* were laid down.

It is, therefore, a little difficult to follow Mr. Simonds, when he says that the question of capital ship replacement is "not so simple as might seem at first glance, because in the view alike of the naval experts and the senator interested in naval problems an antecedent necessity would be to establish some counterbalance to the *Rodney* and *Nelson*." And when Mr. Simonds goes on to say

that "the American view would necessarily be that the British Government should either agree to scrap the *Rodney* and *Nelson* or permit the United States, during the holiday, to construct two ships of equal power," it may be pointed out that America has already not two, but three ships of equal power, mounting twenty-four 16-inch guns to the eighteen 16-inch guns of the *Rodney* and *Nelson*.

With regard to "the view held powerfully at home that in capital ships the United States has not parity," it appears that at the present time there are included in the United States Navy no fewer than 10 ships of 30,000 tons or over, as against three in the British Navy. These 10 most powerful ships in the American Navy mount 108 guns of 14-inch caliber or over, as against 82 guns of 14-inch caliber or over in the 10 most powerful ships of the British Navy. Moreover, the United States Battle Fleet as a whole mounts 192 heavy guns, as against the 166 heavy guns of the British Fleet, and in practically every case the American ships are far more adequately protected than their British counterparts. To a layman, in the face of these figures, it would appear incredible that there exists at present "a decisive British superiority in the fighting line."

Nevertheless, as the principle of parity in capital ship strength has been an accepted principle as between Great Britain and America for a number of years now, every one will agree that it would be most unfortunate should a rankling feeling continue to exist on either side that parity in battleship strength has not been fully attained. This matter, in comparison with some of the other issues which the London Conference will have to face, should be susceptible surely in the hands of experts of comparatively easy settlement by relatively minor adjustments, providing that the major settlement agreed upon at the Washington Conference is not reopened in the manner suggested in Mr. Simond's letter. The way will then be open to a further agreement which will, let us hope, by giving effect to reasonable reduction in the size of capital ships and the caliber of guns, substantially ease the burdens of both British and American taxpayer.

Another public letter replying to the above-quoted letter from Mr. Frank H. Simonds, was published under the caption *Size of Capital Ships*, in the *London Times* on January 23, 1930, from Mr. Geoffrey Drage, and is as follows:

SIRS: We can all express our gratitude to Mr. F. H. Simonds for being so kind as to interpret to us through your columns (January 20) "the naval and congressional views in respect of the capital ships, the views held by our own naval experts, and bound to find a very strong support in the Senate, which must eventually ratify or reject any treaty made at London."

He says that the reason for the retention of the 35,000-ton ships with 16-inch guns is that fleets are divided into two categories, combatant and auxiliary. Yet every ship of war is a combatant, for ships of war are built for combat and for no other reason whatever. Some are larger than others, but that makes no difference as regards the object for which they are built. It is true that of late years a great increase has taken place in size, but that, one may venture with

some confidence to suggest, was due to no demands either of strategy or of tactics. It was due to competition, as a distinguished admiral has pointed out. (The Study of War, pp. 108, 109.) Apart from any study of warfare at sea, common sense would appear to indicate that mere size has nothing to do with decisive action. Two heavyweight boxers fight no more decisively than two bantams; size plays a part only when there is a discrepancy between the combatants. Mr. Simonds observes that, if battleships disappear, cruisers become battleships; that is to say, a reduction in size does not cause a disappearance, for whatever the size of the ship she will still be a battleship. May one remind him that battleships existed long before 35,000-ton ships were evolved? For example, battleships of 10,288 tons (*Indiana* and *Oregon*) and 6,300 tons (*Texas*) took part in the battle of Santiago, while if it is necessary we may go a little farther back to find still smaller ships equally efficient because their antagonists were no larger. Mr. Simonds seems to think that a return to smaller battleships would preclude the existence of cruisers; but this is clearly not the case, for we may remind him that the cruiser *Brooklyn* of 9,215 tons was in the same fleet at Santiago, and among other ships in the United States Navy at the time we find the *Philadelphia* of 4,345 tons; Admiral Dewey's flagship was the cruiser *Olympia*, of 5,800 tons. These facts would appear to demonstrate clearly that the fears Mr. Simonds expresses are groundless. The armed merchant ship is in actual fact a quite imaginary danger; would any experienced officer, for example, suggest that any merchant ship, with the strongest armament that could in practice be put into her, could have fought the *Philadelphia* successfully, armed as she was, according to the Encyclopedia Britannica (11th edition, article Ship. p. 911) with 12 six-inch and 17 smaller guns?

One may further venture to suggest that Mr. Simonds has formed a wholly erroneous impression of fighting officers experienced in strategy when he attributes to them a belief that the security of the Philippines depends upon the action of "moving fortresses" of 35,000 tons armed with 16-inch (or 15-inch) guns. The idea is indeed almost too grotesque (if one may use the epithet without offense) for any serious student of strategy to consider it for one moment. If fleets of any power which are so situated as to be able to threaten the Philippines consisted, for instance, of ships no larger than 5,000 tons, where would be the need for these 35,000-ton floating fortresses, this "fortress fleet," as Mahan contemptuously described a fleet which was the defense of fortresses (Mahan, Naval Strategy, p. 442)?

In fact, on reading over Mr. Simonds's letter with care, a doubt arises in one's mind whether he really can have correctly understood and interpreted the views of United States naval officers, let alone those of the United States Government.

TWO-POWER VERSUS ONE-POWER STANDARD FOR BRITISH NAVY

In a public letter to the editor of the London Times, published in that paper of January 15, 1930, Admiral Sir Reginald Custance,¹

¹ Admiral Custance was director of naval intelligence, 1899-1902, and is the author of War at Sea. He retired in 1912.—*Ed.*

R. N., retired, advocates the return to the pre-war British policy of a 2-power standard for the Royal Navy instead of the present 1-power standard adopted after the World War. Inasmuch as Admiral Custance makes detailed reference to the United States Navy in his presentation of the subject, his letter is quoted below :

SIR: The First Lord of the Admiralty is reported to have said that "our estimate of the defense requirements of the British Empire had been summed up in the policy of successive Governments * * * namely, a 1-power naval standard."

May I venture to question whether that is a sound policy in view of the facts? Our political object is security for Great Britain herself and for her seaborne trade and oversea territories. For several generations this has been held to depend upon a balance of power in Europe resting upon a British Navy strong enough to preserve the balance of European armies by controlling seaborne supplies and a British Army to strengthen the weaker side. This was our policy up to the conclusion of the late war, and was based upon a 2-power naval standard. The United States was not in the picture, because she was not in Europe and was not interested in its security.

After the war a 1-power standard was introduced, seemingly because during the late war the United States began to build a navy. Was that an adequate reason for changing our naval policy? No fundamental change had occurred in our position. The United States was still outside Europe. Her Navy was not a menace to our security as was that of Germany, because it is based on the other side of the Atlantic and the American Nation does not threaten us. Our security still depends upon a balance of power in Europe.

I venture to suggest that the simplest solution of the present problem is to return to the 2-power standard, leaving the United States Navy outside the picture.

The foregoing letter from Admiral Custance brought forth another letter advocating the return of the British Navy to the 2-power standard, and was published in the London Times on January 16, 1930. This letter was from the pen of Mr. Arthur H. Pollen, a well-known English naval writer. The letter follows:

Sir: In a letter published by you on December 5 attention was drawn to certain facts showing that our national policy, as announced by Mr. Baldwin, as confirmed by leading statesmen of all parties and disputed by none, indicated an agreement for a reduction of naval forces with France, Italy, and Japan because the American doctrine of parity would insure the United States conforming to the new standard. This mere common-sense deduction from the facts has been refined and illumined now that Admiral Custance has characteristically referred the whole subject back to first principles. The problem that is, is seen to be purely European. It is not without interest that the return published last Saturday shows that in battleship and cruiser strength the British Navy greatly exceeds the 2-power standard to-day. This country can then volunteer considerable reduction by coming down to the level of France and Italy, confident that the United States will gladly follow.

But clearly, if agreement can be reached on the subject of smaller ships and guns, the abandonment of the submarine will be made easier, for, while our main artillery is so overwhelmingly superior, France and Italy can hardly be expected to renounce any possible defense of their harbors. Should there not be an early prospect of reducing our naval forces well below even the present 2-power standard?

Shortly, our right policy is to secure parity with the two strongest European navies, as it is America's policy to secure parity with us. In setting the future pace of naval armaments it is, therefore, for France and Italy to take the initiative, and for us to make it easy for them to do so.

The letter mentioned by Mr. Pollen as having been published on December 5, 1929, in the London Times, was also from his own pen, under the caption *The Doctrine of Parity*, and is quoted as follows:

SIR: Mr. Drage's² letter is a further proof of what has for some time been obvious, namely, that the real issues at the forthcoming naval conference are not yet clearly understood, even by public men of eminence.

² Geoffrey Drage, M. D., and sublieutenant, R. N. V. R., 1914, attached to military intelligence section of War Office; was president of national conference on sea training, 1910-1914; author of several works on social and economic problems. His letter referred to above was published on Dec. 4, 1929, in the London Times under the caption *The Requirements of Defense*, and is as follows:

"SIR: Everyone who read the report in your columns of Mr. Kellogg's great speech at the Pilgrims' dinner on November 22 must have felt that it deserved the most careful study with a view to clearing up any sources of misunderstanding, for the speech was one of a practical idealist who is seeking to promote the greatest interest of the British Empire, namely, the peace of the world at large, as well as good relations between ourselves and the United States.

"The speech contained two principal propositions:

"(a) That there should be such a reduction as will prevent the use of navies and armies for anything but national protection.

"(b) That as a political and practical necessity parity between our navies is necessary. (The Times, Nov. 23.)

"The first proposition may be described as a summary of article 8 of the covenant of the League of Nations, which provides for a reduction to the lowest point consistent with national safety, 'taking account of the geographical situation and circumstances of each State.' But this, I venture with the greatest deference to submit, is not the basis of the demand for parity which is contained in the second proposition. The United States can (as has recently been shown in your columns) be secure at sea from either of the dangers which threaten a nation at sea (namely, invasion or interference with communications) with a smaller force than we can. Yet it would appear that the United States desire to insist on parity whether it is necessary for them or not. If they have parity, either we with our greater vulnerability must have less than is necessary for our protection or they must have more than is necessary for theirs.

"It is submitted that it is impossible to ride both horses at the same time, and that the United States must show either that their needs, 'taking account of their geographical situation and circumstances,' are equal to those of the scattered British Empire, or that for some reason or other, while all other countries are limited (and properly so) to the strictest requirements of defense, the United States are to be subject to no such limitation, but are to hold a privileged position in the world.

"In face of the inconsistency of their position it would appear that our standpoint must be: By all means let the United States have what they want for security, but, agreeing as we do with Mr. Kellogg in his conviction that war between us is impossible let us have what we need for the same purpose.

"The great danger of 'parity' as a principle is that, owing to the practical difficulties connected with it (which were set out in a letter in your columns on Oct. 26), there is a doubt whether it will not engender an atmosphere of suspicion instead of one of confidence. In fact, in Montaigne's words, *Dans le doute, dit le sage, abstiens toi.*"—Ed.

The basic fact is that in 1915 the American people, through Congress, adopted a new and fundamental doctrine to supplement that associated with the name of President Monroe and every American statesman is as much bound by the second as by the first. This new doctrine is that America is to possess a navy equal to the strongest possessed by any other nation. In the interval between the armistice and the conclusion of the peace, it became clear, I believe, in the discussions at Paris, that Mr. Lloyd George was unaware that America was so committed, and did all he could to get the statesmen with whom he came in contact to abandon the policy involved. At the Washington Conference the doctrine of equality was accepted by Lord Balfour on behalf of this country, and—I speak from memory—Mr. Baldwin and other authoritative British statesmen have asserted on more than one occasion and with a full sense of responsibility that this country, in considering the problem of national security, could and would rule out the American Navy as a possible menace.

It would seem that, if this principle were truly observed, this country would be concerned only with such a menace to its security as is presented by the other naval powers, singly or in combination. If, then, we and they are agreed that the present scale of naval forces and expenditure is wholly unwarranted, it should be with these powers and not with America that the agreement for reduction should be sought. For, observe, if such an agreement should result in a reduction of our and their present tonnage to, say, one-half, we and they could, without any anxiety or fear, leave it to the American people to see that their naval forces and their naval expenditure were not maintained at a higher standard than that which would satisfy the national doctrine—namely, parity with Great Britain.

It is all to the good that Mr. MacDonald's gesture of good will and friendship should have met with so generous a response. But the matter in hand is not one of sentiment, but of overwhelming and immediate economic importance to Europe. It is for the British Government to provide for the nation's security at sea. If America is one of the countries against whose hostility we have to provide, then we have no alternative but to renounce our acquiescence in the doctrine of parity, and leave it to time to settle which country wearies first in competitive shipbuilding. But if, acknowledging the new American doctrine as a fact governing international relations, we also take into account other changes in these relations which prevent it from being a menace to us, then surely the Prime Minister is not dependent on the Admiralty to say whether the American naval program is or is not in excess of parity, and can engage in the more hopeful task of sounding France, Italy, and Japan on such matters as smaller and fewer ships, for it is on agreement with them on such matters, and on such agreement only, that any reduction of naval expenditure can be based.

In the London Times of the following day, January 17, 1930, a second public letter to the editor is published from Admiral Custance, in which the admiral refers as follows to the letter from Mr. Arthur Pollen:

Sir: May I venture to point out to Mr. A. H. Pollen that in my letter to you dated January 13 I did not suggest a 2-power standard in Europe, but "a return to the 2-power standard leaving the United

States out of the picture"? The words "in Europe" were carefully omitted, because our problem, although mainly European, also includes the security of our oversea possessions and interests in eastern seas.

On January 18, 1930, there was published in the London Times another letter from Mr. Arthur Pollen in specific reply to the above letter from Admiral Custance. Mr. Pollen's latest letter follows:

Sir: An argument, to be brief, may have to be elliptic. In calling the problem of our naval standard purely European, I meant that it was one to be settled by the powers cooperating for international purposes in this continent. Of these Japan is, of course, one of the most important. Italy and France, but more particularly the latter, are very critically interested in the safety of the eastern trade routes, and it seems reasonable to assume that agreement between Great Britain and these two powers should go a long way toward securing the adhesion of Japan. Perhaps Admiral Custance would accept, as more exactly within his meaning, the statement that the problem is, if not purely European certainly non-American—one, that is to say which, once solved as between those within the League of Nations, would certainly command the indorsement of the United States.

What the world wants is a unit strength by which the parity standard can be measured, and this from the very purpose of the conference, must be substantially below what has been in debate between Great Britain and the United States. It is the latter which is the newcomer as a sea power, and it is not to be supposed that a country whose honorable record rests on its service to peace desires a provocative or menacing growth of armaments. Rightly interpreted, the new American naval doctrine is perhaps less a challenge to British sea supremacy than a reaction to the old-world assumption that armaments prevent war.

That Admiral Custance's advocacy of a return to the 2-power standard for the British Navy touched a responsive chord among officers of that service is indicated in the following public letter, published in the London Times on January 20, 1930, from admiral of the fleet, Sir Arthur D. Fanshawe, R. N., retired, who was president of the Royal Naval College in 1906-1908:

SIR: May I be permitted to express an earnest hope that the two letters to the Times from Admiral Sir Reginald Custance of January 15 and 17, whose lifelong experience in all sea matters and the universal respect his knowledge commands throughout the navy, and far beyond it, surely entitle him specially to be heard, may not pass unheeded by our Government at the naval conference?

May I further add my conviction that the leading article in the Times of January 11 on Cruisers and Battleships must also greatly appeal to those, at the present most critical juncture, so deeply anxious for the safety, honor, and welfare of our Empire?



DIGEST OF PRESS COMMENT

UNITED STATES

With some 360 correspondents covering the London conference and an average of over 50,000 words dispatched daily across the Atlantic, the present deliberations have been widely discussed in the American dailies.

The concerted efforts of the British press (if as represented by Simonds and others it was really a concerted effort) to project battleships into the forefront at London met with a sharp recoil in the American press. At least three large and influential American papers who had for months been advocating the abolition of the battleship, while in no way renouncing their earlier attitude, promptly came forward with editorials urging a cruiser settlement before further battleship discussion. The firm insistence of the American delegation to consider cruisers first has met with strong approval in the United States.

Universal approval has been expressed over President Hoover's wise choice of delegates.

No statement concerning disarmament has been seized upon so avidly by writers and lecturers as those dealing with the economic features. The observation that a "crushing burden" exists which must be removed from "the toiling backs of mankind" has through force of sheer repetition become an absorbing conviction among American publicists. The battleship is commonly portrayed as the "crushing burden" while the American taxpayer is made symbolic of the "toiling backs of mankind." Drawing a parallel between the cost of one battleship and the amounts devoted to education President Neilson, of Smith College, in a recent radio address, says in part: "The naval budget of the United States for the single year ending June 30, 1929, was a hundred millions more than the total invested funds of Harvard, Yale, Columbia, and Princeton combined. No wonder that the nations are moved by motives of economy to seek naval reduction." This familiar line of attack apparently finds high favor among editorial writers. Possibly it was this emphasis of economic advantages that caused G. B. Shaw, the celebrated English wit, to make the cynical observation, attributed to him,

that the real aim of the London conference was not to make war impossible but to make it cheaper.

That the present conference is but the beginning of a long series of such international gatherings is now generally conceded by the press. The British merchant marine is considered a bar to drastic American curtailments by many editors. Writing in the February issue of the *World's Work*, William Hard warned his readers against expecting too much from the London negotiations, he emphasizing the predominating rôle played by the merchant marine in Britain's seapower.

GREAT BRITAIN

(From notes prepared by naval attaché, London)

The *New Statesman* (Labor), January 18, 1930, notes that "The process of conversion to naval cuts is going on apace even in conservative quarters," but points out that the die-hards are not yet dead and that there have been outbursts during the past week from angry admirals and panicky politicians. The *New Statesman* notes that disbelief has been expressed that the Admiralty had agreed to reduce Great Britain's cruiser strength from 70 to 50, as the First Lord of the Admiralty had stated in a recent address. Mr. Bridgeman, the former First Lord, is quoted as wanting 70 cruisers and also the Singapore Naval Base.

BATTLESHIPS

The *New Statesman* also notes agreement as to the reduction in size of battleships. Those in England who disagree on other questions appear united on this point and declare that even reduction to 25,000 tons is not enough, and that if battleships can not be abolished altogether, they should at any rate be reduced to 15,000 tons, and even 10,000 tons. It is considered that abolition would not be accepted at present by the United States, and there is an inquiry as to whether the United States will agree to Mr. MacDonald's proposal: That for a certain period there shall be neither new building of battleships nor the replacements provided for by the Washington treaties. The *New Statesman* believes that such a holiday would save millions and would probably result in nobody desiring to "resuscitate these absurd monsters."

Truth, January 15, 1930, insists on speaking of "parity" in connection with other classes than cruisers alone, and notes that in capital ships, while Great Britain has a superiority of two, the United States Battle Fleet mounts 26 more heavy guns than Great Britain.

The Spectator (nonpartisan Conservative), January 11, 1930, in an article entitled, "The Abolition of Battleships" shows that Great Britain, the United States, and Japan are the only three powers really interested in battleships, as "The strength of the obsolete or obsolescent battleships which belong to other countries does not count." This article considers that if Great Britain and the United States scrapped their battleships it is virtually certain that Japan would respond, since she is attending very carefully to national economies. This editor states that, according to the greatest naval experts of our day the battleship is of no other use than to fight an enemy's battleships, and, "Therefore if all battleships disappeared there demonstrably would not be a fragment less of safety for all nations than there is now."

The Spectator considers the figure of 35,000 tons for battleships as arbitrary, to which there was no answer "except that it seemed impossible at the time to secure a further reduction" and calls it (the figure) "an object of senseless veneration." The Spectator points out that it is clear that British battleships need only be of the same size as the battleships of other nations, and continues, "As Admiral Richmond pointed out recently in some remarkable articles in the Times, the British motor boats which established an ascendancy upon the lakes of East Africa in the war were for their purpose capital ships." British battleship tonnage could be nothing if the tonnage of foreign battleships amounted to nothing. The Spectator declares that while Admiral Richmond did not use the phrase "abolition of battleships" his arguments contained the substance of it, "He hoped that battleships would be so reduced in size that they would be in the same class as cruisers in regard to tonnage."

This editor considers that the only effectual course is for Great Britain to propose the abolition of battleships. He considers that while "we are often told" that the United States would not consent, "as we understand President Hoover he has pledged himself." He then quotes from the President's Armistice Day speech, "the United States was ready 'to reduce her naval strength in proportion to any other country.' 'It only remains,' he added, 'for the others to say how low they will go.'"

The Economist (independent Liberal), January 18, 1930, says that they are glad to gather from Mr. MacDonald's remarks to the journalists on Wednesday "that the Government will propose that up to 1936 there should be no battleship replacement, and that after that date, if it is felt that replacement is necessary, the new vessels should have both a lower tonnage and a lower gun caliber." The Economist wants to know "is it necessary to assume that the capital ship is to survive at all?" and declares that "All the balance of argument in recent public discussions of the capital-ship question

is in favor of its nonsurvival." The editor points out that Japan has never moved from her Coolidge conference attitude of willingness to accept any agreement which means a reduction of expenditure on armaments, and that the United States has indicated, in the words of President Hoover, that no level which other countries will accept is too low for America, and continues, "Hence a British proposal for the abolition of capital ships should logically find support in the United States and Japan."

The Saturday Review, January 18, 1930, inquires, "What is the use of a battleship?" and hopes that the powers will concentrate on this question. This editor says that battleships are simply what their name implies—ships to be used in battle, as batteries are used on land. He states that the new German 10,000-ton battleship, the *Ersatz Preussen*, has put the old type, heavy 40,000-ton battleship out of date, has revolutionized the naval situation as the *Dreadnaught* did in 1906.

The New Statesman, January 18, 1930, regards the capital ship as "the least contentious item, so far as present indications go," and declares, "Intelligent students of modern warfare have long insisted that the 35,000-ton battleship is not in truth of much more practical use than a mammoth. And now even navy leagues and admiralities have begun to doubt its potency—partly, no doubt, under the influence of the Germans, who have built a 'pocket battleship' of 10,000 tons of astounding strength and speed. All things, therefore, conspire to a reduction of the big capital ship."

This editor wants to know "What is the reduction to be?" He considers that caution and pride "will, of course, stand out at anything so sensibly low as 10,000 tons" and he notices that the Japanese are talking about 25,000 tons, and that "we shall probably have to be satisfied in the end with some sort of half-way house." He is of the opinion that it should be a substantial gain "if we get an agreed maximum of 15,000 or 17,000 tons—with corresponding reductions in gun caliber." He considers that it may be an open question whether such an agreement will in itself have much direct effect in reducing the chances of war. "But it will save money that is badly needed for the more profitable purposes of peace."

CRUISERS

The Economist, January 18, 1930, says that "Given the abolition of the capital ship, the question of gun caliber on 10,000-ton vessels would clearly have to be reconsidered separately in the light of the right accorded to Germany by the treaty of Versailles to mount 11-inch guns on the 10,000-ton *Ersatz Preussen* type, but the difficulties here are by no means insuperable." The writer continues;

"As to cruisers, if the tentative Anglo-American agreement is to stand, and the figures of the other fleets to be brought into relationship with the two largest, there is little satisfaction for the advocates of reduction. The parity which is to be established by 1936 on the basis of 339,000 tons, represented by 15 large cruisers and 35 smaller ones, for Great Britain, and 285,000 (or 315,000) tons, represented by 18 (or 21) large cruisers and 15 or more smaller ones, for the United States, means that for the next five years the United States will be steadily building 10,000-ton cruisers, and we shall be steadily building smaller ones—from 5,000 to 6,000 tons—and both fleets will be distinctly more efficient in 1936 than they are to-day. That, no doubt, constitutes limitation, but it is not a very striking example of reduction as commonly understood."

Truth, January 15, 1930, declares that "in the present phase of the uncertain character of naval warfare the sea powers are unanimous in regarding the cruiser as the unit of premier importance, primarily on account of her association with the destruction or the protection of commerce." He states that the Admiralty has consistently maintained that 70 cruisers were necessary for empire defense, that the First Lord has now stated that the Admiralty has accepted as the "irreducible minimum" 50 cruisers, and "therefore we come to the conference with an offer to sacrifice 9 ships, a definite proposal of reduction," since, as he says, Great Britain to-day possesses 59 cruisers. He observes further that since 50 cruisers is Great Britain's irreducible minimum number, and the United States made parity in cruiser strength with Great Britain "an absolute condition of taking part in the conference at all" the United States comes to the conference on a provisional understanding that the United States shall build fifteen 10,000-ton cruisers within the next three years and add a further 30,000 tons of cruisers—of a type to be decided—to her fleet before 1936. He continues, "To the obvious argument that such a policy is the very antithesis of disarmament, the United States answers that it is really all our fault for insisting upon an 'irreducible minimum' of 50 cruisers. Immediately we are back to the old technical sphere."

The Nation and Athenaeum (Independent), January 18, 1930, considers that the United States has made a big concession in agreeing to measure parity with the British Empire by a more elastic formula than that for which her delegates contended so stubbornly in 1927. The editor also notes that the British concessions are at least as great as those of the United States, since Great Britain has accepted the American superiority in the big cruisers with 8-inch guns, and have also reduced the total number of British Cruisers, for which they ask, to 50, as compared with the 70 cruisers demanded

at Geneva in 1927. He says this concession is made "Mr. Alexander tells us, solely because of the signature of the Kellogg pact." He considers that all all-round agreements are complicated by Japan's demand for a 70 per cent ratio in big cruisers, as well as by France's dissatisfaction with her naval position and the Italian claim for parity with France. He points to a further complication because of the question of eighteen or twenty-one 10,000-ton cruisers to be allocated to the United States, the exact number not having been determined by the Anglo-American conversations prior to the conference. He continues: "For we may rest assured that it is on the American, the larger quota, and not on the British, that other powers will calculate their percentages." He notes that "while the United States is content to consider her naval strength purely in terms of parity with the British Empire, Great Britain has been compelled, by her position and commitments, to take a wider view, and to have regard to the effects of any Anglo-American agreement on the demands likely to be put forward by other naval powers."

The *Economist*, January 11, 1930, calls attention to a statement by Mr. Wakatsuki, the head of the Japanese delegation, which he quotes: "Japan is now claiming 70 per cent of the naval strength of the power which holds the largest number of the larger types of cruisers."

The editor regards this claim for 70 per cent, instead of 60 per cent as one of the "chief preoccupations of the conference." He declares that it is much more important to note that Japan will claim this 70 per cent in relation to the United States and not in relation to Great Britain. He notes that to allow Japan 70 per cent of the United States 21 cruisers would give her 14 treaty cruisers against the 15 allotted to Great Britain under the MacDonald-Dawes agreement, which would mean virtual parity between Great Britain and Japan, instead of the 5:3 ratio laid down at Washington. If the United States is given 18 cruisers, Japan then would get 12 or 13 on this 70 per cent basis, "which, again, would bring her too close to Great Britain for agreement to be probable." He regards "the cleanest way out of the difficulty on paper" would be to revert to the 12:12:8 allocation "which came near finding acceptance at the Coolidge conference in 1927." He continues: "The great merit of this would be that it would relieve Great Britain and Japan (so far as treaty cruisers are concerned) of any new construction apart from ships already laid down. Its weakness—and this would probably prove fatal—is that it gives the United States and Great Britain equality in treaty cruisers, whereas an essential feature of the tentative agreements so far reached is that the United States shall be accorded a superiority in large cruisers to counterbalance a British

superiority in small ones. In spite of that, the 12:12:8 allocation might well be taken as a starting point for discussion."

SUBMARINES

Truth, January 15, 1930, says that the British attitude on submarines "is self-evident, since we are the one power which has everything to gain and least to lose by the abolition of this type of warcraft."

The Saturday Review, January 18, 1930, regards as one of the biggest principles to be submitted to the conference "Our own proposal for the abolition of submarines," or in the alternative for reduction in size and numbers. The Editor points out, however, that there seems to be "no chance of abolishing submarines by agreement." While recognizing the legitimate function of the submarine in coast defense and against close blockade, he considers that the "whole idea of submarine war on commerce is wrong," and emphasizes that the question, "Is it or is it not the intention of nations to use the submarine as Germany used it, to interrupt mercantile communications overseas and to sink merchant ships at sight"? must inevitably be put to the foreground at the conference, in connection with the British proposal to make the number of destroyers dependent upon the number of foreign submarines.

The New Statesman, January 11, 1930, sees in Italy's attitude, so far as submarines are concerned, an agreement with France, and that "it may be taken for granted that Italy stands with France against its abolition." In this editor's opinion, the most that can be hoped for is "an agreement for some limitation of submarines."

DESTROYERS

The Nation and Athenaeum, January 18, 1930, quotes Mr. Alexander (First Lord of the Admiralty) as calling attention to the effect of submarine building abroad on British destroyer requirements, and adds that the figures of French submarine construction give weight to this argument.

The Saturday Review, January 18, 1930, recognizes in the British proposal "To make the number of our destroyers dependent on the number of foreign submarines" one of the inevitable foremost discussions at the conference.

Truth, January 8, 1930, sees "a point of interest to every sea power" in the discussions on the French naval budget. M. Dumesnil, the official rapporteur, is credited with saying that while the new French destroyers outclass those of other powers, they are themselves outclassed by the small cruisers of other powers. Truth considers that a vessel of 2,500 tons is altogether too big for the functions

of a torpedo-boat destroyer and too small for a cruiser. "She is a hybrid type which fails in the essential qualities of either class." The editor refers to the 1,800-ton *Swift*, the British destroyer which was built to carry out the Admiralty idea of "ocean destroyers." He says that the tactical utility of the *Swift* was altogether too vague, and "since then destroyer design has been steadily consistent, our newest 'A' boats being practically of the same size as the vessels of the war period." He considers the modern light cruiser as a "pretty effective type of ocean destroyer," since she is fitted with more torpedo tubes than the average destroyer.

FRANCE

(From notes prepared by naval attaché, Paris)

French press comment regarding the conference during January up to date shows an unanimity in support of the Tardieu government's preconference policies and indicates that the French Premier will be forced to maintain a stiff front when it comes to a discussion of cruisers, submarines, and other auxiliary vessels, and to make a feint at least to approach the problem known as freedom of the seas. There is enthusiasm at the prospect of further limitation of capital ships, the *Figaro* going so far as to prophesy that the reduction of battleship fleets as the most that can be expected at the conference.

The *Temps*, a semiofficial organ, and the *Matin*, which is also a recognized channel for French Government publicity, have been conducting a campaign to arouse public sentiment in favor of a larger cruiser fleet by emphasizing France's position as a colonial power and the importance of adequate protection of the colonies and trade routes.

The press has accorded a favorable reception to the British Government's reply to the French naval memorandum of December 20, which reply is regarded as conciliatory.

Apprehension is voiced, however, that the agreement to be reached at London will not be provisional in character as insisted upon by France; that Italy will maneuver for parity with France, and that the proposed Mediterranean pact of guaranty will be without provision for meeting an aggressor. In this connection criticism is made of the Kellogg pact which is described as being "insufficient" from the point of view of security.

There has been manifested a growing sentiment that France has a definite rôle to play at the conference together with a feeling of optimism that she will have an opportunity to present her case and of confidence in the outcome.

The press of January 20 features the Stimson-Tardieu interview with particular emphasis on the assurances said to have been given by Secretary Stimson that there was no prearranged understanding between the United States and Great Britain. The press of all political colors felicitated itself upon this and gave due credit to the Secretary of State. There was no trace of official communiques from the French delegation or of inspired editorials.

L'Echo de Paris, in commenting upon the interview between Mr. Stimson and Premier Tardieu, features the Secretary of State's "reserve" and "impenetrable silence." The same journal devotes a special article to the comments of Mr. Frank Simonds in the Sunday edition of the London Times, especially that portion of the Simonds article which emphasizes that the United States wants a five-power, not a tripartite, agreement at London. Frank Simonds' observations are interpreted as the "extra-official" views of the American delegation, and it is consequently noted with satisfaction that the French submarine and cruiser demands do not trouble the United States, that the French delegation will not be isolated at London as it was at Washington, and that there will not be any covering clause in the final agreement applicable in case France and Italy disproportionately increase their fleets.

The Figaro places special emphasis on M. Briand's statement that his conversations with Mr. Stimson was characterized by the utmost cordiality. The journal carries a special article by Mr. Winston Churchill entitled "Impressions from America and Naval Parity," in which the position of the United States is described in an extremely unfavorable manner tending to create the impression that the United States is insincere in its naval policy.

The Temps presents a table tending to show that France should occupy a place in the naval stage equal to that of Japan and superior to that of Italy. Mr. Jacques Bardoux, in a special article, insists that the French delegation should fight for two things: No limitation without security and no limitation without equity. He belittles moral guaranties of peace, and by equity he means that full credit should be given to factors such as population, area, coastline, mercantile tonnage, etc.

The Ami du Peuple describes the Tardieu-Briand-Stimson interview as having taken place in an atmosphere of extreme cordiality.

The Journal des Debats consecrates its leading editorial to stressing the unanimity with which the French public of every political affiliation is supporting the French delegation at London. The conviction is expressed that in spite of the idealistic "barometers" and "yard-sticks" of the Anglo-Saxons, France will be able to convince the powers of the justice of her demands.

The *Quotidien* warns against expecting miracles at London and asks that there be no talk of disarmament when there is going to be only a comparative measure of armaments.

The *Journee Industrielle* takes the view that whereas the conference was conceived originally as an Anglo-Saxon enterprise, conditions have changed since the publication of the French naval memorandum so that to-day everyone has a chance to present his views. It declares that France will base its naval demands largely upon colonial and maritime needs, since France as a great colonial and maritime power must not weaken its bonds with the colonies.

Secretary Stimson's banquet speech was featured in all sections of the French press, and most of the leading newspapers commented upon it favorably. Selected for particular emphasis throughout was that portion which points out that "if any one of us leaves this conference feeling that his country has been coerced into an unfavorable agreement, our purpose will not have been attained." Reports of the Tardieu-Stimson-Briand meeting apparently made a very good impression which is reflected in the press and in official circles. As a result the conviction has been reached that London is not a prearranged meet, but a place where every delegation stands a fair chance for carrying away some of the laurels.

There has been a suggestion of a concerted nationalistic drive on foot to discredit the conference, but this suggestion can not be sustained. It is true that there have been a few articles of this nature by Jacques Bainville in the *Ami du Peuple* and *Action Francaise*. One anticonference and anti-American article appeared also in *La Republique*. There has also been a recurrence of the "Anglo-Saxon menace" theme, but nothing in comparison with the outbursts of last fall. These articles, with two exceptions, are apparently published for the purpose of arousing French patriotism to support the Government rather than to discredit the conference. There is a decided sympathy for the point of view that the capital ship should be limited and not abolished, the point being brought out that abolition of the capital ship would make the German battle cruiser all the more potentially powerful.

The *Action Francaise* sounds a pessimistic note about the conference in general, and declares that it has ignored such realities as Germany, Russia, the Scandinavian States, and Turkey, and is attempting to work out a solution of the naval problem without taking into consideration the naval situation in the Baltic and Black Seas.

The *Echo de Paris* presents what purports to be a statement of the views of the American delegation on the capital-ship question and says that the United States, in the person of its "very

energetic Secretary of the Navy," will be uncompromisingly opposed to the abolition of capital ships proposed recently by Prime Minister MacDonald. From the French point of view it says capital-ship reduction must be approached cautiously because of the unknown quantity of Germany's new battle cruisers.

Le Temps, in its editorial of January 21, while stating that land, naval, and air armaments are closely linked together, makes no mention of the necessity of taking the London agreements to Geneva before they can become binding, although in its previous editorials it has persistently stressed this point.

The Ami du Peuple asks why the United States and England want such big navies if they are firm believers in the efficacy of the Kellogg Pact. It adds that France wants a fleet large enough to protect its extensive interests, with a few battleships, if necessary.

The Avenir, referring to the number of foreign naval orders being executed in Italy, points out that as long as Italian ship yards build war crafts for foreign countries she can always increase her navy by requisitioning these units in time of need.

The Figaro notes with satisfaction the unanimous attitude of the Parisian press in defending the French naval point of view.

Le Matin notes that the interesting thing about the present conference will be the arguments brought forth by the two Anglo-Saxon powers to persuade the other three to reduce their navies. It affirms that although France's colonial governors do not intend to bore the delegates with speeches, as in the case of the delegates from six British Dominions, it suffices to regard a map to note the length of the lines of her communication.

Le Petit Parisien observes that Mr. Hoover, backed by 100,000,000 Americans, is sincere in his desire for peace, but that he will have to sacrifice little, as the least benefit that will accrue to the American people is the stabilization of American power and a joint naval supremacy with England. After noting England's sacrifice, it asks whether it is not better for her to accept joint supremacy with a nation of the same blood than to lose it entirely. The Journal concludes by demanding that France shall rank next in naval power after England and the United States.

La Republique contains an article, the apparent object of which is to show the conference as a ruse of the British and a conspiracy of Herr von Krupp and the German metal interests. He says that the general public has been kept in the dark as to what is happening, although one thing is clear: The British and the Americans are not in as perfect accord as they would have the world believe. The Republique's editorial is supported in the news column by an outspokenly anti-Anglo-Saxon and anti-American article from London, signed "Verax."

La Populaire, an extreme Left organ, displays a more sympathetic attitude, and emphasizes the conciliatory rôle being played by the United States.

The opening speeches of the conference have carried growing conviction that France was not being asked to sign a previously arranged Anglo-Saxon contract as was previously feared. It is noteworthy that M. Tardieu's speech was viewed with approval by all sections of the French press. The careful approach to the fundamental questions which are being treated at London are contrasted favorably to Secretary Hughes's startling introduction at Washington.

In a dispatch from London to the *Echo de Paris*, Pertinax, after referring to this latter point, states that MacDonald had hoped to make concrete cruiser proposals or at least certain proposals regarding capital ships in his opening speech but was balked in his desires by American insistence on 21 large cruisers and its refusal to entertain the idea of reducing the size of capital ships. France, according to Pertinax, has nothing to lose by this defeat of MacDonald's plans, which in their entirety would have resulted in placing the Anglo-American condominium—the successor to British supremacy—beyond the possibility of challenge. The French delegation will, if need be, energetically resist such schemes and insist on its naval program calling for parity with Italy and Germany combined. Pertinax distrusts the idea of the Mediterranean Locarno as a mere sham intended to dupe the French into giving up part of their national security and he hopes the French delegation will not fall into the trap.

Secretary Stimson's speech, although not widely commented upon, has drawn the attention of several editors because of its seeming acceptance of the French view on interdependence of armaments. In particular should be noted an eulogistic article by Albert Milhaud in the *Ere Nouvelle* which describes the Secretary as "the master of the conference * * * toward whom all eyes will henceforth be turned." The assurance coming from the American Secretary of State that there is no intention to coerce any country into an unfavorable agreement has given him the leading rôle at London for it furnishes the conference with the keynote and is an answer to critics who have tried to frighten France and other countries with the bugaboo of an Anglo-American preliminary agreement. The writer also states "we are not surprised that Mr. Hoover has chosen his best-equipped representative to present his personal policy." The representative character of the American delegation as a whole is also commented upon.

The same journal also has an editorial stressing the necessity of referring the final agreement to Geneva and sees concessions on this point in the King's and Mr. Stimson's speeches.

The Nationalist group of newspapers, including the *Action Francaise*, *Liberte*, and *Avenir* are continuing their realistic drive which may be interpreted as overenthusiasm for their own representatives rather than hostility to the other delegations.

An article by Henning of the *Chicago Tribune* under the caption "Britain aims to maintain lead while cutting costs. Hoover knew from start of scheme to increase cheaper cruisers while abolishing battleships" has raised considerable comment in the French press and is interpreted as indicating a split in the American delegation between the civilian and naval groups.

The *Action Francaise* asserts that the Republic is selling out to the Anglo-Saxons and that this conference has been called to assure their empire over the oceans.

The *Liberte* advocates a mutual guarantee by the powers over their commerce, their coasts, and their colonies or else be allowed to maintain navies large enough to answer all their naval needs. In that connection it presents a study of French naval needs according to which France should be the third naval power.

The *Temps* declares that M. Tardieu's opening speech interprets exactly the thought and feeling of France, indicating a change in the French attitude, she no longer insisting that her naval needs are fixed with a likelihood of her acceptance of the London agreements as binding.

The *Figaro* demands a firm attitude on the part of the French delegates and hopes that the British delegates will not evade the logic of the French position, but it fears the Americans will not understand it. It expresses the hope that the London conference will not go down in history as the first step in the abandonment by France of her colonies.

The *Excelsior*, after referring to the impressive character of Mr. Stimson's speech, regards as somewhat astonishing his remark that the agreements reached in London would be subject to later modification. It learns with satisfaction that America has adhered to the principle of the interdependence of armaments. It feels, however, that alone among the speeches that of the French representative contained constructive suggestions. Mr. Grandi's speech was characterized as most pacific, while the firmness of tone of Mr. Wakatsuki's suggested a samurai ready to die for an ideal of political honor. If the question of prestige, it concludes, can be eliminated the London conference may do a good work.

The *Intransigeant* observes that after reading the speech of Tardieu it is impossible for anyone not to understand that France's policy of defensive armaments is, above all, a policy of security, and if her guaranties of peace are increased France is ready to consent to reductions commensurate with such guaranties.

La Petit Parisien refers to the encouraging character of Mr. MacDonald's and Mr. Stimson's speeches, regarding them as an excellent augury of success for the conference.

The *Quotidien* carries in an otherwise favorable article an observation to the effect that the Americans, with the usual bad taste of *nouveaux riches*, can not hide their desire to construct enormous dreadnaughts.



CRUISER ARMAMENT

By Lieut. Commander F. S. Craven, United States Navy

(NOTE.—*Inasmuch as the subject matter contained in the following article is considered too confidential for general circulation, it accordingly is published in the O. N. I. BULLETIN. It is hoped that it may prove productive of valuable comment.—Ed.*)

These notes relate to the gun armament of 10,000-ton cruisers from the tactical standpoint, with particular reference to their rôles in supporting and beating off destroyer attacks in a day general engagement.

Assumptions.—That the cruiser would carry the gun armament apparently accepted as standard for the United States Navy' at the present date, namely, nine 8-inch/55 guns in three turrets, eight 5-inch A. A. guns, and a number of A. A. machine guns. It is further assumed that the 5-inch battery, when used against aircraft during a day general engagement, would usually be directed against aerial bombers having other objectives—that is, bombers en route to attack the main body or the airplane carriers, not the cruisers themselves. This assumption is based upon the writer's belief that in a general engagement the enemy would not usually divert his limited number of heavy bombers from primary objectives to employ them against a secondary type which is quite vulnerable (as regards its ship and gun control stations) to dive bombing with light bombs and machine gunfire. Against direct diving attacks the cruiser's machine guns probably would offer the most effective defense, not its 5-inch battery.

Supporting our destroyers implies advancing with them while engaging and beating off enemy forces trying to break up the attack. An obvious component of such enemy forces would be cruisers—perhaps, 10,000-ton cruisers much like our own; perhaps the smaller type, now existing in several foreign navies, carrying guns smaller than 8-inch but having much higher rate of fire. Another component of the enemy's defensive forces might be his destroyers, the prospect of their employment increasing with the power of our destroyer attack.

The number of our supporting cruisers probably would not greatly exceed the number of enemy cruisers because strategic uses would require employing many of our cruisers elsewhere. In fact, if

the enemy's cruisers were of lighter types they might well be more numerous than our own. It therefore follows that our cruisers would have to devote their major attention to cruisers, not destroyers. Either their main batteries would have to be directed principally against cruisers, leaving their 5-inch batteries as almost their sole weapon for simultaneous use against destroyers, or a few of the cruisers would have to be wholly diverted against destroyers.

The second alternative would not prove efficient because of the low rate of fire of the 8-inch battery, which probably can not fire more rapidly than five salvos per minute. On the other hand, the 5-inch battery can fire upward of 15 salvos per minute and a 5-inch hit on a destroyer would not be much less effective than an 8-inch hit. The logical plan is to use the 8-inch battery principally against cruisers and develop the 5-inch battery for use against destroyers. In proportion as this battery was effective against destroyers, their ability to interfere with an attack by our destroyers would be lessened, and the prospect of the success of our attack correspondingly increased.

This idea should not be confused by reflecting upon the inefficiency of destroyer gunnery, because destroyers operating defensively have a weapon more potent than gunnery. To break up a serious attack they probably would not hesitate to employ tactics like those of the *Broke* and *Swift* in their famous English Channel encounter with German destroyers, where physical interference, at close quarters, including ramming, proved so effective. To prevent this, or to lessen its disastrous effect when it has developed, we need to equip our cruisers to inflict serious damage on the enemy's destroyers before they can reach close quarters with ours.

Beating off attacking destroyers finds our cruisers in the rôle above considered for the cruisers of the enemy. Their primary purpose becomes to damage enemy destroyers, but they can not devote their entire battery to this purpose because this would leave the enemy supporting cruisers unengaged, able to fire under target-practice conditions at our cruisers. Our cruisers must employ some or all of their 8-inch guns against the enemy cruisers, leaving only the 5-inch battery and perhaps a portion of the relatively unsuitable 8-inch battery to use against their primary objective.

The tactical efficiency of our cruisers, in the two rôles of supporting and beating off destroyers, is clearly dependent upon the character and arrangement of their 5-inch battery. Current plans provide for eight of these guns, which is a respectable number, but their utility appears to be small for the following reasons:

(a) The guns are disposed in waist locations, so that only four of them can be directed at targets bearing on one side of the cruiser; in a general engagement, destroyer targets probably would bear on one side or the other most of the time, not on both sides.

ing the firerooms under a single funnel enough center-line space can be saved to place two mounts on the center line aft, so widely separated that both mounts can bear 20° on either bow. For parallax reasons, relating to antiaircraft fire, the 5-inch battery must be closely grouped, which requires locating the other two mounts aft. They can be given the waist locations shown, with arcs of fire from 6° on the bow to 5° across the stern. Two centerline 5-inch control stations are shown, one at the forward upper end of the bridge structure and one in a tower just forward of the 5-inch mounts and over 100 feet abaft the funnel. Both stations are provided with well placed protective machine guns, and mountings are also indicated for the proposed 1.1-inch multibarreled machine gun firing explosive projectiles. It is assumed that these control stations would be fitted with light armor protection as visualized above, and that the machine guns would be fitted with umbrellalike armored shields to protect their crews from machine gun bullets. Such protection is denied the attacking airplanes because of its weight, but this is no reason for failing to provide it for shipboard machine guns.

From the tactical standpoint the advantages of this arrangement would be six instead of four guns for use against destroyers, and guns with a horizontal range great enough to make them a serious menace. Protected mountings and control stations would greatly increase the probability that the 5-inch battery would be available when needed. It seems a conservative estimate that the tactical effectiveness of the cruiser would be increased 200 or 300 per cent.

A contingent advantage would be the improved effectiveness of the 5-inch battery against bombing aircraft. Their protected mounts and control stations would increase the prospect of their being available when needed. By removing them from the vicinity of the funnel and bridge structure their overhead cones of fire are vastly increased, and there are many bearings at which all eight guns could be fired at the same overhead target. Finally, the proposed locations are directly above the after magazines, permitting a direct ammunition supply instead of the lateral transportation, upwards of 60 to 100 feet, which would be required to supply ammunition from forward magazines to the gun emplacements contemplated in the current design.

To offset these advantages there are only three evident disadvantages. One is increased weight, due to protected mounts. Another is a possible reduction in rate of fire, due to using twin mountings. The third is obstruction of the overhead view of the gun crews.

The weight for protected mounts should not be great. If gained at the expense of speed it should not entail a reduction greater than the fraction of a knot. When the evident tactical importance of

protection is opposed to the theoretical and not very convincing arguments favoring excessively high speed, this small sacrifice appears eminently proper.

Using twin mounts might reduce the rate of fire slightly, but probably not to the extent experienced with the twin 6-inch mounts of the *Omaha* class relative to single 6-inch mounts. The reduced rate of 6-inch fire is due principally to using a cumbersome loading arrangement for the twins in place of direct hand loading for the single mounts; with the 5-inch guns the loading arrangements presumably would be similar for both types of mount. In short, six 5-inch guns in twin mounts should deliver more total shots per minute at a target than four single 5-inch guns, although perhaps fewer salvos per minute; but the 6-shot salvo would be materially more effective than the 4-shot salvo as regards spotting, therefore hitting.

That inclosed mounts would obstruct the overhead view of the 5-inch gun crews is admitted, but this does not constitute a serious objection. The 5-inch gun is intended primarily for use against heavy bombers against which it depends for its effectiveness on its director system. Using the director system the gun crew need not see the target at all. If the director system be out of commission the gun must go to pointer fire, for which it uses telescopic sights. These would be available with an inclosed mount as well as an open one. The open mount's advantage would lie in the ability of members of the crew to see the target and coach the pointer group until they could pick it up with their sights. It would not seem an insuperable problem to devise auxiliary equipment or a method enabling the sights of an inclosed mount to be brought on the target. The principal need for unobstructed overhead view is to meet diving attacks, but against these the 5-inch gun would be relatively inefficient in any case, and machine guns are therefore provided. It would be illogical to give the 5-inch guns exposed mountings simply to fit them better for use against dive attacks.

Summary.—For years our destroyer officers have regarded enemy cruisers as their most serious opponents. Battleship secondary batteries have been considerably discounted because of the expected demoralizing and destructive effect of our battle line heavy gunfire which would be fully effective against their exposed positions. There are also the seriously disturbing influences of blast and smoke from their own heavy guns and splashes from our "shorts" to reduce the efficiency of this fire.

But when we view light-cruiser gunnery in the light presented in this paper, the menace which light cruisers of existing design present to destroyers shrinks to even smaller significance. Unless the

enemy's cruisers were numerically so strong that he could hold off our cruisers with some and send the others with their entire batteries against our destroyers, the cruiser menace would largely evaporate. The enemy's destroyers would then have to be used defensively, as has been described. In other words, the menace to destroyers would become destroyers, not cruisers. To meet this menace we need light cruisers able to engage cruisers and destroyers effectively at the same time.

And when the picture is reversed, so that it is the enemy's destroyers which are attacking, unless we have cruisers of the type referred to we shall have to divert our destroyers from their intended offensive use against battleships to the wasteful defensive rôle of breaking up the enemy attack by direct physical interference.

Either we need two types of cruisers or a type, such as that outlined herein, capable of effective simultaneous use against both cruisers and destroyers.



NAVAL ARMAMENT LIMITATION

(NOTE.—*At the time of going to press the following important proposals have issued from the London Naval Conference.*—Ed.)

PREMIER ANDRÉ TARDIEU STATES THE FRENCH POSITION

At the plenary session of the London conference held on January 23, 1930, Premier Tardieu, chief of the French delegation, made the following statement setting forth France's position at the conference:

I

In its memorandum of December 20, 1929, the French Government declared that it would have no difficulty in justifying its national requirements, thereby raising a problem of method. Before instituting or resuming the technical debates begun at Washington in 1921, and continued at Rome and Geneva, the French Government has deemed it preferable first to make a statement of the facts that justify the necessity and proportion of its navy. Placing myself on that ground, and excluding any immediate discussion about figures, I am very pleased to answer to-day the question that was put on Tuesday last by the president of the conference, and to answer his suggestion of proceeding in this first sitting with the study of national requirements.

My Government considers, in agreement with Mr. MacDonald, that it is for the governments represented at the London conference to examine the general conditions that define the respective situations of the different naval countries. This examination will facilitate the later work of the experts, who would not, moreover, be qualified to study the problem on that plan.

The memorandum of December 20 last was worded thus:

"Subject to the preceding observations, the French delegation will have no difficulty in making known the importance of the tonnage corresponding with the national needs of France, taking into account her geographical position on three seas, the extent of a colonial empire with an area of 12,000,000 square kilometers, populated by 60,000,000 inhabitants, and a trade amounting to 30,000,000,000 francs. The existence of such an empire, the necessity of providing for the separate defence of each of the big communities it comprises, the numerous political and economic ties which bind these big communities to each other and to the mother country, the need to protect the integrity and economic life of the latter, the task of providing for the security of more than 30,000 kilometers of seaboard, all told, impose upon the French Navy duties which the French Government can not ignore."

I propose to analyze briefly the preceding declaration. It will be an illustration of the general memorandum it is taken from.

II

The national requirements of the naval powers are determined by geographical, economic, and military factors. Under reservation of international agreements, and of guaranties that such agreements may imply, the rôle of the navy is triple. It consists in:

(1) Insuring the integrity and the security of the coast of the mother country and of the oversea possessions.

(2) Binding together the mother country, the colonies, and all other oversea territories of which she has the responsibility.

(3) Guaranteeing in every way the freedom of the lines of communication that are necessary to the national existence.

I intend to examine briefly from the three standpoints above mentioned the needs of my country.

III

They deal with:

(a) The importance and situation of the mother country.

(b) The importance and situation of the colonial territories and all other oversea territories.

(c) The length of the coasts.

(d) The lines of communication.

1. *Mother country*.—The coasts and ports of the French mainland are scattered on three different seas, the result being that the metropolitan fleet is necessarily divided and, in case of war, can concentrate only after several days and only by utilizing routes dangerous from a military point of view and which normally are under the control of other powers.

2. *Oversea territories*.—The territories placed under the sovereignty, the authority, or the mandate of France are characterized by their extent and by the fact that they are widely dispersed.

(a) Their area, 12,000,000 square kilometers, is greater than that of the whole of Europe. Their population is 60,000,000. Great Britain excepted, no other power possesses such a huge empire judged by its area. The French Colonial Empire is six times larger than the greatest of the other colonial empires—namely that of the Netherlands. In population it is larger by 11,000,000 inhabitants.

(b) The extent of our oversea territories is doubled so far as our responsibilities are concerned by their being scattered over every part of the world. They are divided into seven groups, as follows:

	Square kilometers	Population
North African group.....	3, 770, 000	13, 000, 000
Eastern group.....	200, 000	2, 100, 000
West African group.....	7, 640, 000	19, 560, 000
American group (West Indies, Guiana, Saint Pierre).....	100, 000	500, 000
Indian Ocean group.....	640, 000	5, 900, 000
Indo-Chinese group.....	740, 000	21, 000, 000
Pacific group.....	20, 000	100, 000

It is superfluous to add that such an extent and such a dispersion have the same consequence—the length of the coasts, the length of the lines of communication, and the great distances between the bases obliging our navy to be on all the seas.

I wish to give, in connection with the coasts and lines of communication, some further supplementary information:

3. *Length of Coasts*—

	Nautical miles
Mother country-----	2, 430
Oversea territories-----	15, 679
Total-----	18, 109

Alone the British Empire, the United States, and Japan have a greater length of coasts.

4. *Lines of communication*—The lines of communication between the mother country and the oversea territories give a grand total of 33,850 nautical miles, particulars of which are given below:

Distance from the mother country to—

	Nautical miles
North African group-----	500
Eastern group-----	1, 250
West African group-----	4, 200
American group-----	4, 400
Indian Ocean group-----	4, 500
Indo-Chinese group-----	7, 000
Pacific group-----	12, 000
Total-----	33, 850

If we compare the length of those lines with the length of the lines of communication of the other naval powers, calculated in the same way, we discover that alone the British Empire outruns France.

We noted that, in calculating the French lines, the above list does not include the communications with the Kerguelen Islands and Austral lands.

IV. ECONOMIC FACTORS

Each of the groups of oversea possessions that have just been examined has its own part to play in the economic existence of France. That part is expressed by the importance of the commercial relations, on the one hand between the mother country and each group, and on the other hand between one group and each of the other groups. It is, therefore, indispensable that the navy should be able to insure at all times the policing of routes, the safety of their termini, the protection of the national trade that flows along them and the importance of which is given below in figures.

The commerce of the oversea territories under the sovereignty or authority of France represents:

	Francs
With France-----	15, 000, 000, 000
With foreign countries-----	15, 500, 000, 000
Total-----	30, 500, 000, 000

The above figures are for 1927. Those for 1929 will, no doubt, be much larger. In 20 years our colonial trade has been multiplied four times. Details of the trade of each group of possessions are as follows:

	Francs
North African group-----	13, 500, 000, 000
Eastern group-----	1, 860, 000, 000
West African group-----	3, 472, 000, 000
American group-----	1, 170, 000, 000
Indian Ocean group-----	2, 334, 000, 000
Indo-Chinese group-----	7, 661, 000, 000
Pacific group-----	342, 000, 000

If we consider the total of the foreign commerce of France and of territories depending on her which is carried by sea, we ascertain that it amounts to \$3,200,000,000 francs, representing 66 per cent of its total commerce. Only Japan, the British Empire, and United States have a higher percentage.

V. MILITARY FACTORS

Considered from this standpoint, two duties devolve upon France, the gravity of which it is superfluous to underline. Being obliged to keep a considerable strength of men in her oversea territories, France must:

(1) Be able at all times to depend on her navy to insure to her the possibility of transporting the necessary forces from or to any point of her empire.

(2) Be able, for the defense of the mother country, to use at any time her total resources.

The consequence is that the protection of the lines of communications which have such an essential importance in France's economic life represents for her a vital element in the safety of the empire.

VI. CONCLUSION

Such are the permanent elements which determine the requirements of the French Navy. As I mentioned last Tuesday, owing to international agreements those absolute requirements may be, in a great measure, transformed into relative requirements. They, therefore, depend, so far as the figures that may result are concerned, on a particular political situation and on the conditions of outside security that comes from that situation. They depend, more particularly, on the fact of knowing whether, in case of conflict, the country can rely upon itself only, or whether an international collaboration has been organized against the aggressor.

To-day we had merely to group together the fundamentals. That is what I have endeavored to do in the above statement.

FRENCH TRANSACTIONAL PROPOSAL

The text of the French "transactional proposal" made public on January 31, 1930, is quoted as follows from a press report:

The limitation of naval material deals with floating material and consists of the following: (1) Measures for limitation, (2) measures for public information and (3) regulations for replacements.

Under the first heading, measures for limitation—

(A) The limitation of floating material relates to total or global tonnage—that is to say, to the total of the individual displacements of all vessels susceptible of being used as fighting units, with the exception of those vessels which are specified as not yet subject to limitation.

The maximum total tonnage which no high contracting power shall exceed during the period of the application of the convention is fixed at — tons.

A table shows for each high contracting power the total tonnage which, taking into consideration the limit laid down in the preceding paragraph and present states of security, this high contracting power undertakes not to exceed during the period of the application of the convention.

INFORMATION MEASURES

(B) The individual standard of displacement for vessels to be laid down after the convention goes into force shall not exceed — tons.

(C) The caliber of the guns of vessels to be laid down after the convention goes into force shall not exceed — tons.

Under the second heading, measures for public information:

Limitations specified in section 1 are supplemented by the following measures for public information:

(A) A table of tonnage by class shows the way in which each high contracting power intends to distribute, during the period of application of the convention, the total tonnage which it was limited by the figure indicated, so far as it is concerned, in the table of total tonnages allotted to the particular powers. For each class this tonnage corresponds to the figure which should not be exceeded during the period of the application of the convention, by the total of the individual displacements of all vessels which at any one moment are on active service, and which, by their characteristics, belong to the class in question. The classes mentioned above are specified as follows:

CLASSES OF VESSELS

Class A.—Vessels the individual standard displacement of which exceeds 10,000 tons or with guns of more than 8-inch caliber.

Class B.—Light surface vessels with guns exceeding 6 inches caliber.

Class C.—Light surface vessels whose guns do not exceed 6 inches caliber.

Class D.—Submarines.

Class E.—Aircraft carriers.

Class F.—Special vessels, such as mine layers, training ships, aircraft transports, etc.

Within the limit of the total tonnage and in the absence of more strict conditions resulting from special conventions to which it is or may become a party, each nation may alter this distribution, subject to the following conditions:

(1) Tonnages by class shall in no case be the object of increase or subtraction of an amount exceeding the figures given in the annexed table.

(2) The amount of tonnage of one class which is to be transferred to another class shall be notified to other nations at least one year before the laying down of the ship or ships, for the construction of which the transferred tonnage has been assigned.

MUST NOTIFY NATIONS

Each nation shall notify the others within a month following the laying down of any vessel that is being built for its own account, the type and the displacement of this vessel. This information shall be supplemented at the time the vessel is launched by publication of the main characteristics of the armaments of the vessel.

Even should they not have been declared to be in active service, ships still under construction shall be regarded as being on such service after the lapse of a period dating from their laying down of — years in the case of class A; of — years in the case of class B; of — years in the case of class C; of — years in the case of class D; of — years in the case of class E; of — years in the case of class F.

SECRETARY STIMSON'S STATEMENT

Following is the text of Secretary Stimson's summary of the American position at the London conference, as reported in the press on February 6, 1930:

At the opening of the conference the United States delegation made no statement of its position or the needs of its country beyond the historical fact of the agreement in principle for parity between Great Britain and the United States. We are now in a position where we can go further. Following discussions among ourselves and negotiations with the British and Japanese which have clarified the limits of possible agreement, our delegation has made suggestions as follows:

First, with Great Britain immediate parity in every class of ship in the navy. The gross tonnage of these two fleets is substantially 1,200,000 tons apiece. The negotiations last summer between President Hoover and Prime Minister MacDonald practically reduced the discussions of parity between them to the comparatively insignificant difference in their respective cruiser-class tonnage of 24,000 tons. We propose to settle this difference as follows:

Under our suggestion the actual tonnage difference between the two cruiser fleets will be only 12,000 tons. Of the larger cruisers armed with 8-inch guns Great Britain will have 15 and the United States 18, an advantage to the latter of 30,000 tons.

Of the smaller cruisers armed with 6-inch guns Great Britain will have an advantage of 42,000 tons, but beyond this, in order to insure exact equality of opportunity, the United States makes the suggestion that each country will have the option of duplicating exactly the cruiser fleet of the other. Thus Great Britain would have the option, by reducing its number of small cruisers, to increase its large cruisers from 15 to 18 so as to give it a total tonnage of 327,000 tons, the exact amount of tonnage which the United States now asks. On the other hand, the United States would have the option, by reducing its large cruisers from 18 to 15, to increase the number of its small cruisers so as to give it a total cruiser tonnage of 339,000 tons, the exact amount of tonnage which the British now ask.

In battleships we suggest by reduction in number on both sides to equalize our two fleets in 1931 instead of in 1942. At present the British battleship fleet contains two more vessels than ours. In de-

stroyers and aircraft carriers we suggest equality in tonnage, and in submarines the lowest tonnage possible.

As is well known, we will gladly agree to a total abolition of submarines if it is possible to obtain the consent of all five powers to such a proposition, and in any event we suggest that the operations of submarines be limited to the same rules of international law as surface craft in operation against merchant ships, so that they can not attack without providing for the safety of the passengers and crew.

Second, our suggestion to the Japanese would produce an overall relation satisfactory to us and, we hope, to them. In conformity with our relations in the past it is not based upon the same ratio in every class of ships.

We have not made proposals to the French and Italians, whose problems are not so directly related to ours that we feel it appropriate at this time to make suggestions to them. A settlement of the Italian and French problem is essential, of course, to the agreement contemplated.

The United States delegates do not feel at liberty to discuss any further details in figures, and it is obvious that the announcement of hypothetical figures by others is calculated only to provoke argument.

Our delegation is in agreement on every item of our program, and we are in the most hopeful spirit that in cooperation with the other delegations the primary purposes of the conference, namely, the termination and prevention of competition in naval armament and such reductions as are found consistent with national security may be accomplished.

This is all that we deem it helpful to state until our suggestions have been considered by the delegations to whom they have been sent.

PRIME MINISTER MACDONALD'S STATEMENT

Following is the press report of the text of Prime Minister MacDonald's statement setting forth certain aspects of the British position at the London conference, issued February 7, 1930:

His Majesty's Government in the United Kingdom considers the naval conference of supreme importance. It believes the conference ought not only to reduce existing fleets and building programs but put an end finally to competition in naval armaments and thus constitute an important step toward the ultimate elimination of the causes of war and toward establishment of peace on an unassailable foundation.

The policy of his Majesty's Government in the United Kingdom is to keep the highway of the seas open for trade and communication and, in relation to the political state of the world, to take what steps are necessary to secure this. In estimating its naval needs, the Government has also to take into account its obligations under the covenant of the League of Nations, partly offset though they are by the security afforded under the covenant by its provision of mutual support.

There are also other commitments which have to be fulfilled in relation to the present state of the world. In deciding what these commitments amount to in terms of naval strength, the Government has to estimate the chances of war breaking out, because unless this is done, fleets will be built, which will never be of any use, will threaten rather than protect, and will at best be a waste of national resource.

NAVAL EQUILIBRIUM URGED

The Government feels that if naval establishments are not to be a menace, an equilibrium must be maintained between them by means of international agreement. It feels, moreover, that this equilibrium will not be secured by mere numerical equality in ships and tonnage, but only by adoption of agreed programs based on considerations of requirements affecting dispersions, etc., and in which the menace will be reduced as much as possible.

This can not be done by any general formula or ratio. It must be the subject of conferences such as this, and of agreements made for periods, at the end of which they should be reviewed, and during which Governments should be engaged in strengthening the foundations of peace.

It is therefore proposed that the general agreement resulting from this conference should run until 1936 and that in 1935 a further conference should be called to review the situation in relation to world relations.

In view of these considerations his Majesty's Government in the United Kingdom suggests the following proposals for the conference:

The agreement should be not upon global tonnage but upon the size of individual ships in the various categories and upon the tonnage used by each nation in each of these categories.

The categories should be capital ships, aircraft carriers, cruisers, destroyers, and submarines.

NEED FOR CATEGORY ACCORD

An agreement by categories is necessary in order to obtain elimination of competitive building and the maintenance of equilibrium between fleet and fleet. These two points are essential if security is to be obtained. It is not only the total tonnage of a fleet which counts but the use to which these tons are put, and an agreement on the latter point is called for.

At some time it might be convenient to allow a percentage of tonnage assigned to different categories to be transferred to other categories. The British Government, however, does not favor a general transfer. It is opposed to transfer in regard to capital ships, aircraft carriers, and submarines. In regard to cruisers it would permit the transfer out of the 8-inch class into the 6-inch class on a percentage which remains to be arranged. The object of this arrangement would be to take into account the special needs of countries which require a large proportion of small cruisers.

The Government proposes that the number of capital ships for each signatory fixed by the Washington treaty should be reached within 18 months of ratification of the treaty resulting from this conference instead of by 1936. It proposes that no replacement of existing ships should take place before the next conference, in 1935, and that in the meantime the whole question of capital ships should be the subject of negotiation between the powers concerned.

The Government will press for reduction, though, of course, without disturbing the Washington equilibrium. Its experts favor a reduction in size from 35,000 tons to 25,000 tons and of guns from 16 to 12

inches. The Government also favors the lengthening of age from 20 to 26 years.

The Government hopes that there will be an exchange of views on this subject during the conference. Indeed, it would wish to see an agreement by which battleships will in due time disappear altogether, as it considers them a very doubtful proposition, in view of their size and cost and of the development of the efficacy of air and submarine attack.

WOULD LIMIT PLANE CARRIERS

The Government would further limit the tonnage and gun caliber of aircraft carriers and suggests that ships of 10,000 tons and under should be included in the total tonnage of this category if used as aircraft carriers.

It proposes a reduction of total aircraft-carrier tonnage for the British and United States Navies from 135,000 tons under the Washington treaty to (say) 100,000 tons, and an adjustment of that assigned to other nations in the Washington treaty ratios. It further proposes that the maximum size of aircraft carriers should be reduced to 25,000 tons and that their age should be 26 years instead of 20.

It was assumed during the recent conversation between the Governments of the United States and Great Britain that cruisers should be grouped in one category, which, in turn, should be divided into cruisers carrying 8-inch guns and cruisers carrying 6-inch guns, and under. It also was assumed during the negotiations that the requirements of the British Commonwealth would consist of a total tonnage of 339,000 tons, divided into 50 categories.

A final arrangement will be governed by the decision of the conference regarding limitation in the size of units. The British Government proposes that the tonnage limit of 8-inch cruisers should remain at 10,000 tons, as provided for in the Washington treaty, and that there should be a tonnage limit for smaller vessels at about 6,000 or 7,000 tons. It suggests that only a fixed proportion in the latter class should be built up to that limit and that the life of cruisers should be 20 years.

LIMITS FOR DESTROYERS

In regard to destroyers, it is proposed that the limit assigned should be, for leaders, 1,850 tons. The maximum size of guns for both classes of destroyers should be 5 inches. The present British building program of destroyers is for 2,000 tons ultimately, but this can be reduced if the submarine programs of other powers are reduced, for it is obvious that the size and total tonnage of destroyers must largely depend upon the size and total tonnage of submarines.

The Government proposes the abolition of submarines. Its experts feel that the argument that the submarine is an arm solely of defense was destroyed by the experience of the late war, and that in war conditions it is an arm of attack. If abolition can not be agreed upon, the British Government will put forward proposals limiting submarines rigidly to defense requirements.

In any case, it will press for limitation of the submarine to the lowest possible limit, and it proposes to urge revival of the agreement, signed at Washington in 1922, but not ratified by all of the signatory

powers, which would regulate in the interests of humanity the use of submarines against merchant ships.

In regard to auxiliary vessels not strictly entering into fleet strength, the Government proposes that they should be specified, and that each government should publish yearly lists of vessels of this class in commission as laid down.

THE SUBMARINE

Below are printed, in order of their delivery, the press reports of speeches made by delegates of the five powers at the plenary session of the London Naval Armament Conference, held on January 11, 1930, on the subject of abolition or regulation of the submarine as an instrument of warfare:

GREAT BRITAIN

Speech by Mr. A. V. Alexander, First Lord of the Admiralty:

I count it both an honor and a heavy responsibility to be intrusted with the task of introducing for discussion a proposition of my colleagues that the use of submarine vessels for purposes of war should be totally abolished.

It is, of course, in no way a surprise proposal. It has been consistently urged by successive governments of His Britannic Majesty and, it will be remembered, was specially pressed at the 1921 conference at Washington. That conference gathered less than three years after the armistice of 1918. Representatives of the powers had fresh in their minds the bitter experiences of the first war in which submarines had been extensively used. The world in general had not had obliterated from its mind the feelings of horror which peoples had experienced as the results of submarine action which, to quote Lord Balfour, were "inconsistent with the laws of war and the dictates of humanity."

I do not think it unreasonable to ask that steps may be taken to prevent a recurrence of such events before a generation which had experience of them passes out and a new generation without such direct knowledge is in control. I am aware, of course, that some of the powers represented at this conference have indicated some unwillingness to agree to the complete abolition of the submarine, and we in this delegation do not for a single moment suggest that the desire of these powers to retain submarines implies in any way an intention to employ these vessels in a manner contrary to the laws of war. We clearly understand that their attitude in regard to this matter is based on their views as to the value of the submarine for purely defensive purposes, though, quite frankly, we feel these views to be mistaken.

EXPERIENCES OF THE WAR

The fact that some of our friends base their view on what they believe to be the defensive character of the submarine leads me to examine that view somewhat closely. I have already said that the war of 1914-1918 was the first in which submarines had been extensively used, and it is well there to take note of the experience. I tell you frankly that although this country endeavored to use the submarine for coast defense that endeavor was largely a failure and did not prevent the shelling of a number of towns and forts with heavy loss of

civilian life and much material damage. Nor is the reason very far to seek. If you have to deal with the coast defense of important points, what has to be guarded against as a rule is a sudden raid, probably under the cover of darkness, or a bombardment at dusk or dawn by a vessel approaching at high speed.

We are convinced that these are not conditions under which submarine can act efficiently. On the surface they are not more than torpedo boats of slow speed—submerged they are either blind or of very limited vision. Our view, therefore, is that for purposes of coast defense the submarine is comparatively ineffectual in relation to what she costs both to build and maintain.

On the other hand, there can be little doubt from the experience of the war that the submarine is capable of, and was used to a large extent for offensive operations.

In thinking of the British Navy alone, it would not be difficult to produce numbers of instances where both for reconnaissance and actual attack in narrow seas and harbors the submarine was effectively used in offensive actions. I have no doubt that other powers with their evidence could further demonstrate this argument. And do not the special characteristics of the submarine make it of considerable potentiality? Its increasing torpedo and gun armament and its special capacity for long endurance constitute powers for offensive action of no mean order.

Finally, under this heading, may I point to the extent to which the submarine was used as a commerce raider during the war? I do not here dwell upon the repulsive feature of its use for that function with its lack of provision for the saving of life both of passengers and crews, but merely ask whether the extensive operations of this character in the late war were not offensive actions. Will not retention of those vessels in fact always constitute a danger that their employment in the hands of an unscrupulous enemy will lead to methods of attack which civilized nations regard with horror?

POSITION OF GREAT BRITAIN

It may be said—and if not said it will be thought—that the proposal is one that is of special benefit to this country; that we are the most vulnerable, as was shown in the last war, and seek to safeguard ourselves from a danger that is far greater for us than for any other power. We do not desire to minimize the importance of this point of view to us, but I would remind you that the other powers here represented also experienced heavy losses totaling over 2,000,000 tons and in addition the losses of neutral shipping in the last war exceeding 1,500,000 tons. Therefore, though our British shipping suffered most severely in the last war, is it not possible that any one of the powers may be in an equally difficult position if the calamity of war should again break out and submarine warfare is retained?

If the balance of advantage appears to rest with us at present on that score, what is the position of the submarine? Is it regarded—as I have already indicated some regard it—as mainly a defensive weapon? From that point of view the British Empire could show greater need for defensive vessels than any power having regard for its immense seaboard and long lines of communication in every sea. Yet

we are prepared unreservedly to surrender such defensive protection as submarines are argued to afford and I submit this point for the careful consideration of the powers.

Gentlemen, we are here to confer in order to get an agreement which will mean a real reduction in armaments, to demonstrate to the peoples we represent our faith in the covenant of the League of Nations and in the signatures of the pact of Paris for the renunciation of war. Such a reduction of armaments will not only advance the general cause of peace but will also secure an appreciable relief in the economic burdens of nations. I ask you, therefore, to consider our proposition also from that point of view.

The powers here represented have built, are building, or authorized over 400 of these vessels designed for submarine warfare. They are expensive in maintenance. They have most complicated machinery and a very high proportion of skilled personnel is required to man them. They are very expensive to build. They require extensive provision in the way of shore establishments and depot ships to maintain them. Their abolition would in itself, therefore, achieve enormous reductions in armaments expenditure.

But the saving would not end there. Indirectly such a decision as we urge would accomplish almost equally large savings in the provision of destroyers and antisubmarine units, so that if the conference agreed to abolish the submarine we could immediately sit down together to reduce figures which would otherwise appear as necessary under this head. The total economy would therefore be enormous.

HARDSHIPS OF SUBMARINE CREWS

I desire to add two short but, I think, very material considerations in support of our proposition from the point of view of the personnel employed in submarines. Those of us who are politically responsible for a policy would do well, I think, to consider (*a*) the general conditions of service in submarines and (*b*) the risks of disaster and loss of life even in peace time. As to the first, I imagine almost all of us have been in a submarine. We admire its ingenuity and its wonderful technique, but we are bound to observe that the lack of space involving long periods of being unable to stand upright, with vitiated atmosphere very often when submerged, are hardly in keeping with the improved conditions for industrial workers which we now all of us consistently urge at Geneva. As to the second, think for a brief moment of the toll of submarine disasters even since the war.

Gentlemen, seamen are not cowards. They daily face the dangers incident to their calling, which fills us with great admiration. But is it not true to say that every time there is a submarine disaster the public conscience is shocked at our own flesh and blood being required by national policy and exigency to face death in conditions in which they have no more chance than a rat in a trap? And there is not a power here to-day, I regret to say (I wish there were), which has not experienced such disasters.

I will not mention them all, but taking only the worst of them since 1918 in connection with 12 mishaps in the course of peace-time submarine operations of the five powers, no fewer than 570 men have met their deaths in conditions I have named.

I beg that we may consider the possibility of wiping out the recurrence of such calamities which can not be wholly met by the life-saving devices now undergoing experiment.

CASE FOR ABOLITION SUMMED UP

I sum up our case for abolition very briefly:

1. In the general interest of humanity.
2. In consideration of our view that these vessels are primarily offensive instruments.
3. In order to secure a most substantial contribution to disarmament and peace.
4. In view of the very important financial relief to be obtained.
5. In consideration of the conditions of service of the personnel and the undue risks which can be abolished.

Gentlemen, I am speaking to-day for the purpose of advocating the total abolition of submarines, and I have done my best to present to you the arguments as I see them which should lead us to adopt such a course by international agreement. If we fail to reach such agreement here, we shall, I feel, have missed a great opportunity.

What the position of His Majesty's Government will be in that event has already been made public. We shall endeavor to confine the submarine to defense by limiting it strictly in size and numbers. In that connection we should be prepared to accept the lowest possible limits that can be suggested, again both in numbers and size.

We should also propose to the conference that if submarines are to be retained the most definite conditions should be laid down and agreed upon with a view to preventing these vessels from being used as commerce destroyers in violation of international law and practice, under the standards of conduct which public opinion most certainly demands. To that end we should seek to revive the agreement signed in Washington on February 6, 1922, but which was not fully ratified by the signatory powers, to regulate the attack of merchant ships by submarines in accordance with the rules and practice set out in that treaty.

I would sincerely urge, however, with all the power it is possible for a single suppliant to command, but supported by tens of millions of people throughout the world, that the proposal of my colleagues for the total abolition of this type of war vessel may be unanimously accepted by the delegates and that we all, therefore, have a part in an act which would mark a very real advance in the evolution of the peoples of the world toward international understanding, amity, and permanent peace.



UNITED STATES

Speech by Mr. Henry L. Stimson, Secretary of State:

At the Washington conference in 1922, the American delegation accepted the view of their naval advisers that the United States needed a large submarine force. They were, therefore, opposed at that time to its abolition. Such a stand was based upon purely naval strategy, without receiving humanitarian considerations because the conference agreed that the submarine should not be used against commerce except

under the same obligations relative to the safety of passengers and crew which apply to sailing craft.

I quite realize that our views on the subject are not shared by all our colleagues. However, we all recognize the solution of our problems can be found through a frank and friendly discussion. In setting forth the views of the American delegation, I want to make it clear that I am the first to recognize the sincerity of those who disagree with us. My remarks will be addressed entirely to the question on our agenda, and in no sense constitute a criticism of any of our colleagues or of their attitude on this subject. I am, therefore, confident they will not take amiss anything I am about to say.

NOT A DEFENSIVE WEAPON

Years of reflection have tended to crystallize the conviction through the world that inhumane use of the submarine should cease. The American delegation believes that the time has come for us to deal frankly with this question. We have sought to examine all aspects of this problem and have given careful study to the arguments which have been advanced in favor of retaining this weapon. They are so well known that I need do no more than mention them at this time.

The argument that the submarine is a purely defensive weapon seems to us difficult to reconcile with the offensive use which has been made of it at great distances from its home ports. The contention that it is a less costly weapon which affords a maximum of strategic value for a minimum of outlay must be considered in the light of the knowledge that the submarine is three or four times as costly ton for ton as the largest type of surface craft and approximately twice as costly as the largest ships of war. In addition, a nation requires a considerable number of submarines in order to secure effective dispersal. Furthermore, it must be remembered that the life of the submarine is only 13 years. Thus, we figure that the submarine is three or four times as costly as the largest types of ships.

OTHER CLASSES OF SHIPS AFFECTED

Furthermore, I feel that there is a very weighty argument in the fact that the construction and maintenance of submarines impose upon all navies higher levels in those classes of ships which are used against all submarines, namely, destroyers and light cruisers.

I have recapitulated these technical considerations chiefly because I feel that the picture of the problem before us would not be complete unless they were stated. However, it seems clear to me that we have got to brush aside what are, after all, secondary considerations. If we are here to-day, it is because there is an insistent and growing demand on the part of the nations of the world that we revise our armaments in the light of the solemn covenants of the Briand-Kellogg pact and the mutual confidence engendered by it.

We can not but feel that for this conference, called under such influences, to sanction an instrument of war the abuses of which were directly responsible for calling the western world into the greatest European war of history, would be a contradiction of the purposes for which we have met.

I am not speaking of theory. I am speaking of historical fact and a fact which human experience shows is likely to be repeated.

The essential objection to the submarine is that it is a weapon particularly susceptible to abuse; that it is susceptible of use against merchant ships in a way that violates alike the laws of war and the dictates of humanity.

The use of the submarine revolted the conscience of the world, and the threat of its unrestricted use against merchant ships was what finally determined the entry of my own country into the conflict. In the lifetime of our experience it seems clear that in any future war those who employ the submarine will be under strong temptation, perhaps irresistible temptation, to use it in the way that is most effective for immediate purposes regardless of belligerence.

COMMON INTEREST IN ABOLITION

These considerations convince us that technical arguments should be set aside in order that the submarine may henceforth be abolished. We have come to the conclusion that our problem is, whether in this day and age, and after the experiences of the last war, the nations of this conference are justified in continuing to build these instruments of warfare, thereby assuming responsibility for the risk of repeating in any possible future wars the inhumane activities which have been condemned by the verdict of history.

It seems to the American delegation that we have a common interest in the abolition of the submarine: First of all, for the purpose of suppressing costly weapons which we can forego by agreement and by the abolition of which we reduce our requirements in other classes of ships; and, second, for the purpose of eliminating for the future the dreadful experiences of the past.

The American delegation, therefore, urges that they set aside purely technical considerations and give careful study to the possibility of eliminating this whole problem.

In conclusion, I wish to make it clear that we are not disposed, even if it were possible, to carry this proportionally on emotional grounds; we look upon it as a practical and common-sense measure directly in line with the limitation and reduction of armaments which the peoples of the world expect us to attack resolutely and successfully.



FRANCE

Speech by M. Leygues, Minister of Marine:

The French Government at the first plenary session of the conference stated their international requirements such as they result from the metropolitan and colonial situation of France. These latter requirements include the use of the submarine.

The French Government considers that the submarine is a warship like all the others; that it is a defensive weapon which all the naval powers can not do without, that the use of the submarine should and can be regulated like any other warship.

These are three points which France will keep in mind in stating her standpoint and drawing up her proposals to be determined by the general structure of her empire.

The submarine often has been mentioned as a machine without its like in naval warfare. The above saying can hardly be maintained, either as a matter of principle or as a matter of fact.

Compared with other ships, what are the distinctive features of the submarine? To the gun and torpedo joined together it adds submersion. The latter discovery is never more surprising nor in itself more unlawful than was, at the time of its first appearance, the steamship as opposed to the sailing vessel.

To every improvement of offensive weapons corresponds a progress in defensive weapons. To the gun and torpedo were opposed the armored bulkheads and the bulge.

Against surprise attacks of submarines navies protect themselves by nets, mines, and listening detectors. Wireless, indeed, multiplied the military efficiency of the submarine. But some day or other it must be outdone by a new appliance which will not only reduce its offensive or defensive powers to the level of older weapons but will show its relative weakness.

Only the total abolition of war fleets might put a stop to the continual progress of technical evolution.

SUBMARINE AS A WARSHIP

It has been maintained, on the other hand, that the submarine could only be used against the merchant ship. Comparison between naval tonnages of warships destroyed during the war period brings forward the following figures:

As far as the French were concerned, the loss by submarines was 82,350 tons; that is, three-quarters of the total losses suffered. As concerns the British Navy, 191,090 tons; that is, one-third of the British losses. As concerns Italy, the figure was 20,020 tons; that is, one-fourth of her losses. The tonnage, including Russia, of allied warships sunk by submarines amounted to 312,860 tons.

What warship the submarine does not destroy it will immobilize, or, should they leave their bases, it wears them out. By obliging them to keep higher speeds and be constantly on the watch it tires them out by constantly threatening both crews and engines. The submarine works by surprise. It lies in wait for the enemy, but was ambush ever excluded from warfare? It hides under water, but does not the surface ship sometimes try to hide behind a screen of smoke? It attacks other warships without warning, but does not the most powerful armed surface ship wait to open fire until she is within range?

The submarine, therefore, is a warship like all others, sometimes more efficient, sometimes more exposed to danger. Must it disappear because it disturbs the habits and honored traditions of surface ships? It may happen to-morrow every type of warship in the various navies will belong to the submarine class. As for a reproach made to it of not being chivalrous, it has already been made to all new weapons by the older ones—to the firearm by the sword, to the torpedo by the gun.

A navy of lesser order with extensive responsibilities can not do without the defensive means offered by submarines. It would, moreover, be impossible to abolish or reduce defensive weapons without the risk of giving dangerous advantage to offensive means.

WHY FRANCE WANTS THEM

France, whose territory faces three seas, is further obliged to protect the unity of an empire covering 4,400,000 square miles, with 18,000 miles of coast and lines of communication extending 34,000 miles. She must also secure free and regular communications to and from northern Africa. The submarine answers those various needs, for it is chiefly on the submarine that we rely for—

1. Protection against enemy attacks of populations and cities along the coast in the absence of the high sea fleets and the defense of distant dependencies pending the arrival of supporting fleets.

2. Escort and protective convoys transporting men and goods between the mother country and the colonies.

3. Guarding lines of communication over long distances when bases are lacking between the mother country and the colonies or between the colonies themselves.

4. Scouting and protection of the high seas fleets.

For such operations the submarine can not be done without. As a scout it is practically matchless; it is the only type of ship which can without support sail through enemy fleets to observe and report about the enemy's whereabouts. As a convoying ship, by increased tonnage it has become more seaworthy.

France, for these various tasks, can not do without submarines. She also needs them because of the comparative weakness of surface craft. When at the Washington conferences she accepted, in a spirit of conciliation and in order to emphasize the nonaggressive character of her naval policy, a ratio for capital ships clearly inferior to the level which her position in the world would have allowed her to reach, it was on the express condition that she would keep her entire liberty as concerned defensive ships (cruisers, destroyers, submarines).

NO CHANGE IN POINT OF VIEW

The French point of view has not been altered since then. France still considers the submarine as the defensive weapon par excellence. In particular, she expects from the submarine, as all the lesser naval powers do, the only protection against a long-distance blockade by surface fleets.

We must mention in that respect that all the smaller navies in the making begin by securing submarines as the least expensive means of defense. When the naval status of States asking admission to the League of Nations had to be determined, the league accepted as lawful that they should be provided with submarines. This is a small fact that the present conference, including the five chief naval powers of the world, should always bear in mind.

We have yet to discuss the opinion that has been expressed of the submarine being a barbarous instrument of war. It owes such reputation to the use made of it in some quarters against merchant ships, against the principles of humanity which are the foundation of international law.

NOT NECESSARILY UNLAWFUL

But the violation of such principles is ascribable to those who have used the submarine to bad effect, not to the submarine itself. The use

of submarines against merchant ships is not necessarily unlawful. Everything depends on the intention behind it. There is no weapon which can not be used to criminal purposes.

A surface ship can destroy the enemy, as well as neutral trade, against every rule of international law. It can also shell a town on the coast from the offing and its shells are not likely to single out the fighting from the noncombatant inhabitants.

Mine layers, which are not always submarines, can hardly be certain that the mines that they lay will make a distinction between war-ships and merchant ships or between belligerents and neutral ships. What is certain, at any rate, is that crews, whether combatant or not, can not rely on the mine to pick them up.

Before sentence is passed against submarines, it is necessary to show that they can not be used conformably with international law. Examples of the war, on the contrary, show that British submarines in the North Sea and the Baltic did comply with international law in the course of their operations against merchant ships. Since then the evolution of the submarine has made it still more capable of proceeding to visits and searches while observing the rules established for surface ships. If submarines can fulfill the same duties, why should they not enjoy the same rights?

CONCLUSION REACHED BY FRANCE

The logical conclusion is to treat likewise, as far as both rights and duties are concerned, the submarine and the surface ship, and this is the conclusion come to by the French Government.

The French Government is of the opinion that unrestricted submarine war against seafaring trade should be outlawed by submarines under the rules of both the present and the future to be observed by surface ships. France accepts the principle laid down in articles 1 and 2 of the Root resolution. She is of the opinion that it is possible in practice to make use of submarines for controlling trade without violating, as was the case during the war of 1914-1918, the principles universally accepted by civilized nations for the protection of neutral and noncombatant lives. She is ready to pledge herself by treaty and can rely confidently on the discipline of her sailors.

A motion tending to abolish submarines would, if insisted upon, lay down three questions and principles:

1. The measure of lawfulness of any weapon of war deriving from the progress of science and technical improvements.
2. The right of lesser and smaller powers to possess, as sovereign States, a navy corresponding to their requirements and their means of national defense.
3. The freedom of the seas.

The French delegation would be ready to discuss those questions should the conference so decide. They think, however, that discussion will proceed on other lines. They remember that at the Washington conference neither the American, the Italian, nor the Japanese delegations had asked for abolition of submarines and that the attitude of these three delegations was very near that presently adopted by the French delegation.

WILL AGREE TO REGULATION

The French delegation therefore hope that the conference, after discussing the various propositions put forward this morning, may agree and admit that the submarine has fighting value against other ships of war.

They expect that the conference will also admit that the use made of the submarine in the recent war justifies its regulation, not its abolition.

Consequently, the French delegation, maintaining their positions as expounded in their statement of national requirements, declare that first they are ready to concur in an international agreement regulating the use of the submarine, and to that effect they submit to the conference the following resolution:

"A committee shall be appointed to prepare an agreement, open for signature of all naval powers, forbidding submarines to act toward merchant ships otherwise than in strict conformity with rules either present or future to be observed by surface warships."



ITALY

Speech by Signor Dino Grandi, Foreign Minister:

The preceding speeches reveal two tendencies with regard to submarines. One embodies a maximum program—their abolition; the other a minimum program—the limiting of their use against merchant ships.

Naturally, I have no objection to discussing the latter proposal. I do not think it should present much difficulty, for at the time of the Washington conference the idea of regulating and restricting use of submarines against merchant ships was unanimously accepted by the delegations of the five powers here represented.

Adoption of this minimum program far-reaching though it be in its effects, would, however, by no means exhaust our task.

I am confident that our conference desires to go to the root of this problem so as to achieve the ends assigned to us by public opinions the world over. These ends are—let me emphasize it—not only limitation but actual reduction of armaments.

In the note by which they invited us last October to attend this conference the British Government informed us that they had arrived at an understanding with the American Government on the advisability of abolishing submarines altogether, and they expressed the hope that the others of the five powers would see their way clear to agree in London to their abolition.

I will not conceal the fact that the idea of abolishing submarines has given rise in my country to a feeling of perplexity which is not confined to naval circles. Nevertheless the Italian Government, in their determination to neglect nothing which can promote the cause of disarmament, propose to examine this question not as a separate problem, but as one within the general framework of those which the present conference is called upon to consider and solve.

WEAPON OF THE WEAK

Many maintain that the submarine is a weapon of the less armed against the more powerfully armed. Indeed it affords the former a means of offering resistance which entails certain risks to an aggressor who is disposing of superior forces. The Italian Government concur in this view.

They believe that in the present state of armaments, the abolition of the submarine would favor the stronger navies to the disadvantage of the weaker and that it would be unjust to deprive the latter of this weapon without due regard to their possibilities of defense.

On the other hand the Italian delegation deem that they would fail in their duty of cooperating in the solution of the general problem of disarmament, were they to disregard the arguments brought forward by advocates of the abolition of the submarine.

The value of the submarine, it is contended, lies mainly in the menace that it represents—a menace, the effects and reaction of which include the possibility of attacking capital ships, interrupting lines of communication and destroying trade. This menace has compelled the building of ships capable of resisting or evading submarine attacks and has greatly contributed to the increase of displacements and speed.

The necessity of preventive measures against such attacks has led also to a marked increase in the number of light surface vessels required for the protection of battleships, for the convoying of merchantmen, and for the patrolling of trade routes. It has also engendered a whole system of defensive measures which weigh heavily on the budgets of the several navies.

AN INCENTIVE TO NAVAL INCREASE

The submarine, which in the opinion of its advocates, is an effective weapon of offense and defense for the less powerful navies, thus becomes in the opinion of its opponents one of the major incentives toward the increase in naval armament and one of the main obstacles in the way of effective reductions.

We thus find ourselves involved in a vicious circle from which there is no outlet. How can we break through this circle? How can we deliberately enter upon a path leading to disarmament? Is it possible to take into due account the interests and wishes of both sides of the argument? Can we conciliate the claims of those who demand abolition of the submarine with the requirements of those who desire to retain it?

The submarine is the only weapon which can be used with some chance of success against those battleships which the less powerful navies do not possess. Is it possible to find a solution which will cover on the one hand the abolition of the submarine and lead on the other to a substantial reduction of armaments, providing simultaneously for abolition of capital ships?

Has not the desire to abolish these ships been voiced again in the last few days?

ITALY'S POSITION RESTATED

Let me restate our position. Italy is ready to renew an undertaking restricting the use of submarines against merchant ships. She is even prepared to go further. A large portion of public opinion points to

abolition of the submarine as a step which would mark a new epoch in the history of disarmament; it considers such action essential, in fact, to drastic reduction of armament and as an essential factor for the promotion of wider agreements.

In the last few days the proposal to abolish submarines has appeared in two important documents.

We keep an open mind on the subject.

Two years ago, in the course of other negotiations on naval disarmament, the Italian Government proposed a naval holiday for capital ships. The Italian delegation note with satisfaction that this idea is now being favorably considered by other governments. In the same spirit which led them to make that proposal, the Italian delegation is now willing to participate in a discussion of the abolition of submarines.

We fully appreciate the point of view of those who may consider such a proposal contrary to the interests of their national defense. It is evident that agreements we are seeking can only be the result of self-imposed limitations, freely accepted by each and all.

The Italian delegation share the view that at the present stage of the problem a discussion on the abolition of submarines would be in the interest of disarmament.

We do not object in principle to the abolition of submarines if all the naval powers concur therein, and if such an abolition is to exert a decisive influence in bringing about that drastic reduction of armaments which the whole world desires.



JAPAN

Speech by Admiral Takeshi Takarabe, Minister of Marine:

It has to-day been the privilege of all of us here to listen to very enlightening statements on the question of submarines. I can fully sympathize with the high humanitarian motives that are animating the interesting idea of totally abolishing this particular category of warcraft.

I am one of those who deem it most desirable that if war must be fought its destructive powers must be minimized, innocent lives spared, and valuable wealth conserved. I am most emphatically opposed to unlimited submarine warfare as was witnessed during the World War.

But in one respect I must differ with some of the propositions put forward to-day by some of my esteemed colleagues. The merits of a submarine are not to be judged by what she does but by what she is. It is not a ruthless weapon to be condemned in contradistinction to surface craft.

For that matter, what weapons of war can be put to the merciless use of victimizing lives and property to no greater point? Let us take the most obvious instance. Flying machines are being developed day by day and are adding so much to the progress of peaceful communications, but at the same time they are proving formidable weapons and if abused would offer a menace to defenseless lives and property even more atrociously than submarines themselves.

They have in one sense a wider range of action. They can, if so willed, play havoc, not only at sea but on land. Nothing can more clearly show the truth of the axiom that the sword will cut both ways. The submarine has its proper legitimate usage.

USEFULNESS TO JAPAN

It is an appropriate medium of defense as a scout and an instrument to ward off any attack in adjacent waters of a country. Japan, consisting as she does of so many islands scattered so widely on a sea extending from the tropical to the frigid zones, sees in such a kind of arm a convenient and adequate means for providing for her national defense.

With this comparatively inexpensive warcraft she can contrive to look after her extensive waterways and vulnerable points. Japan desires to retain submarines solely for these purposes.

As to the necessity to put an end once and for all to recurrence of the appalling experiences of the World War, Japan heartily associates herself with the proposal which is apparently in the minds of many of my colleagues—to submit this category of arms to the strict circumscription of law.

HOPE FOR RESTRICTION

It was Japan's wish that this measure should be adopted early and she not only signed the submarine treaty agreed upon at the Washington conference but very quickly ratified it. She wishes very ardently that the present conference revive that question and will succeed in discovering a mathematical formula much more strict in its conception, so that all the powers represented at this table can unite to make it operative at no great distant future.

Japan will be second to none in giving her full support to an undertaking to outlaw the illegitimate use of a legitimate and defensive agency of war.

PREMIER TARDIEU'S STATEMENT OF PROPOSED NAVAL STRENGTH FOR FRANCE

The statement of naval strength proposed for France, as submitted to the London conference by the French delegation, was made public on February 13, 1930. The press report of the statement follows:

The French delegation, with the same desire of coming to an agreement that inspired the recent declarations of the American and British delegations, considers its duty, at the point reached by the work of the conference, to specify its position as follows, with a view to accuracy in the present note, we should mention that each tonnage is put down in British tons.

When compared to the pre-war period France has considerably reduced naval forces. In 1914 she possessed a fleet of 964,000 English tons in service or laid down, plus 175,000 English tons authorized or building, a total of 1,139,000 English tons. To-day, either in service, in building, or authorized, she possesses a fleet of 681,808 English tons, namely, 457,192 tons less.

On the other hand, of all the great naval nations France in 1929 was the only one to have a naval budget inferior to the pre-war budget; it came to 18 per cent less. Lastly, the naval program adopted in 1924 by the French Government and carried out since then by annual shares represents in addition when compared with the situation in 1919 a reduction of 339,000 English tons, a reduction with all the more meaning as the Franco-British agreement concerning the distribution of fleets existing in 1914 is no longer in force.

BUILDING PROGRAM ALREADY CUT

It may therefore be said that in the same spirit as Great Britain and without waiting for a possible decision of the present conference France has already and in considerable measure cut down her building program.

The state of the French fleet on the 1st of January, 1930, including ships in service, building, or authorized, can be summed up as follows: Capital ships coming under the Washington substitution rules, 133,136 tons; capital ships not under the Washington substitution rules, 52,791; cruisers of 10,000 tons (Washington), 70,000; old cruisers with guns of caliber over 8 inches, 66,963; cruisers, destroyers, torpedo boats, and a number of special ships (1 cruiser, a training ship, 2 minelayers, etc.), 228,897; aircraft and seaplane carriers, 32,146; submarines, 97,875; total, 681,808 English tons.

Concerning the above figures it must be noted that the capital ships not coming under the Washington rules are three dreadnought ships in service since 1911 that France was authorized to keep outside of the preceding rules.

The state of the French fleet on the 1st of January, 1930, compared to the 1st of August, 1914, shows the following differences: Capital ships, 550,860 less; cruisers and torpedo boats, no change; aircraft carriers, 32,146 more; submarines, 62,328 more; total, 457,000 less.

OLD SHIPS IN ACTIVE SERVICE

It should be further pointed out that of all the navies in the world the French Navy was the only one not to build anything from 1914 to 1920, as her dockyards were busy during the whole war making ammunition for France and her allies. That is the reason why she has been obliged to keep in active service beyond the age limit an important tonnage of old ships, especially battleships and cruisers. If, as proposed by the communiques published by the American and British delegations, the powers represented at the conference were to take as the ground for their agreement establishment of a building program running from 1930 to 1936, the French delegation would be willing to accept this method with the double reserve that the four other powers would be the same and the French Parliament would ratify her decision.

The French fleet on the 31st of December, 1936, might then be made up as follows: Capital ships coming under the Washington substitution rules, 52,791; cruisers of 10,000, 100,000; old cruisers mounting guns with a caliber over 8 inches, 24,850; light ships (cruisers mounting guns with a caliber of 6 inches or under, destroyers, torpedo boats, etc.), 258,597; aircraft carriers, 32,146; submarines, 99,629; total, 724,479 English tons.

WOULD BUILD 240,000 TONS

Concernings that second table the following remarks should be made:

1. From 1930 to 1936 France would build 240,000 tons. Out of those 240,000 tons 43,200 would represent complementary building and 196,800 tons of replacement. In other words, from 1930 to 1936 France would give up 82 per cent of her effort to replacing obsolete battleships and 18 per cent to complementary building.

2. The tonnage laid down before 1936 and not in service until the 31st of December, 1936, is compensated by scrapping ton for ton of equal tonnage of obsolete ships.

3. As concerns capital ships, it has been understood displacement would run between 20,000 and 25,000 tons.

4. As in the preceding table, it has been supposed that special ships will be distributed among the classes mentioned in the table.

Outside of these special remarks the French delegation wishes to introduce two observations of a general character.

1. As concerns capital ships, France has not thus far availed herself of the right given her by the Washington treaty of building before the conference the 70,000 tons in replacement of the ships which disappeared in 1922, of the *Jean Bart* and the *Courbet*, whose substituting tonnage might have been laid down as soon as 1927. France is now obliged, owing to the recent forthcoming of a new type of battleship, to make use of part of that credit of 70,000 tons before the end of 1936, and she might be compelled to use it completely during the same period should new ships of the same type happen to be built. Therefore, in case a naval holiday should be proposed for battleships until 1936, France would be willing to accept such a holiday up to a total of 105,000 tons.

ARMAMENTS INTERDEPENDENT

2. In view of the importance it gives to the principle of the interdependence of armaments, the French Government, in conformity with its memorandum of December, 1929, once more insists on the fact that any decision of the London conference about naval armaments should be taken in relation with the problem of the limitation of land and air armaments.

The only suggestions and figures so far produced being those presented by the American and British delegations, acting for the two inviting powers, the French delegation wish to add to their answer that it was felt their duty to give the following statement: France has witnessed with warm sympathy the efforts made by the United States and Great Britain to prepare, after thorough consideration of their mutual political relations, reduction in their naval armaments. Just as the American and British Governments were in consequence able to declare that war between the two nations was unthinkable, France also is happy to declare her proud conviction that between her people and those of the United States and of the British Empire any armed conflict is equally unthinkable. Her naval program as well as their own corresponds to a strictly defensive policy in conformity with the international agreements to which she is a party, particularly the Briand-Kellogg pact.

This is why France was never alarmed to see the United States or Great Britain either reduce or increase their respective armaments in order to reach the desired agreement.

HOPES FOR NO ALARM

In the same spirit of mutual confidence she trusts that the figures produced above and corresponding merely to her national requirements as explained in the first sitting of the conference can not alarm the two other nations.

She remains, as she repeatedly declared herself to be, ready to consider favorably any form of agreement for mutual guarantee of security, of which the effect would be to transform the absolute requirements of each power into relative requirements.

TEXT OF JAPANESE STATEMENT

The text of the Japanese statement submitted to the London conference was also made public on February 13, 1930, by the delegation of that country, and is quoted as follows from the press report:

It is the belief of the Japanese delegation that the London Naval Conference has been convened in response to the universal yearning of mankind for establishment of an enduring peace. Japan is determined to contribute her full share in bringing about an all-round reduction in naval weapons of war to the end that human happiness may be increased and that financial burdens of peoples may be lightened.

In view, however, of the relativity of naval strengths against one another, Japan desires to maintain such force as will insure the safety and security of the nation—a force necessary for her national defense in far eastern waters whose tranquillity constitutes her primary concern. The attitude of the Japanese delegation, predicated upon these considerations, may be outlined as follows:

Too strict an application either of the principles of global tonnage or division into categories would not be suitable for arriving at agreement among the powers concerned. The Japanese delegation is in favor of a formula which would harmonize the two extremes, allowing transfers in certain categories.

The Japanese delegation is ready to agree not to lay down any capital ships until 1936. It also deems it desirable that agreement should be reached so as to reduce the size of capital ships to 25,000 tons from the 35,000 tons stipulated in the Washington treaty. The maximum gun caliber should be reduced to 14 inches. Japan advocates the lengthening of the age limit from 20 to 26 years.

Provisions for the limitation of aircraft carriers in the Washington treaty should be extended to those of less than 10,000 tons. The age limit for aircraft carriers of more than 10,000 tons should be lengthened from 20 to 26 years, and for those of lesser types shall be set at 20 years.

The Japanese delegation considers it necessary to hold, as has been repeatedly intimated, strength adequate in proportion to that of other powers concerned. If, therefore, those powers will see a way to reducing their strength, Japan is prepared to effect reduction to a proportionate degree.

Japan attaches special importance to 8-inch gun cruisers and desires to maintain minimum strength sufficient for national defense, taking into consideration the strengths held by other powers.

The maximum individual tonnage for 6-inch gun cruisers should be 7,000 or 7,500 tons and that for flotilla leaders and destroyers should be adequately limited. It is necessary that the number of flotilla leaders also be limited. The age limit for cruisers should be set at 20 years and that of destroyers at 16 years.

In view of the character of submarines as being eminently adapted to defensive uses and in view of the peculiar geographical condition of Japan, consisting of many widely scattered islands, the Japanese delegation is convinced of the necessity to retain this category of war craft.

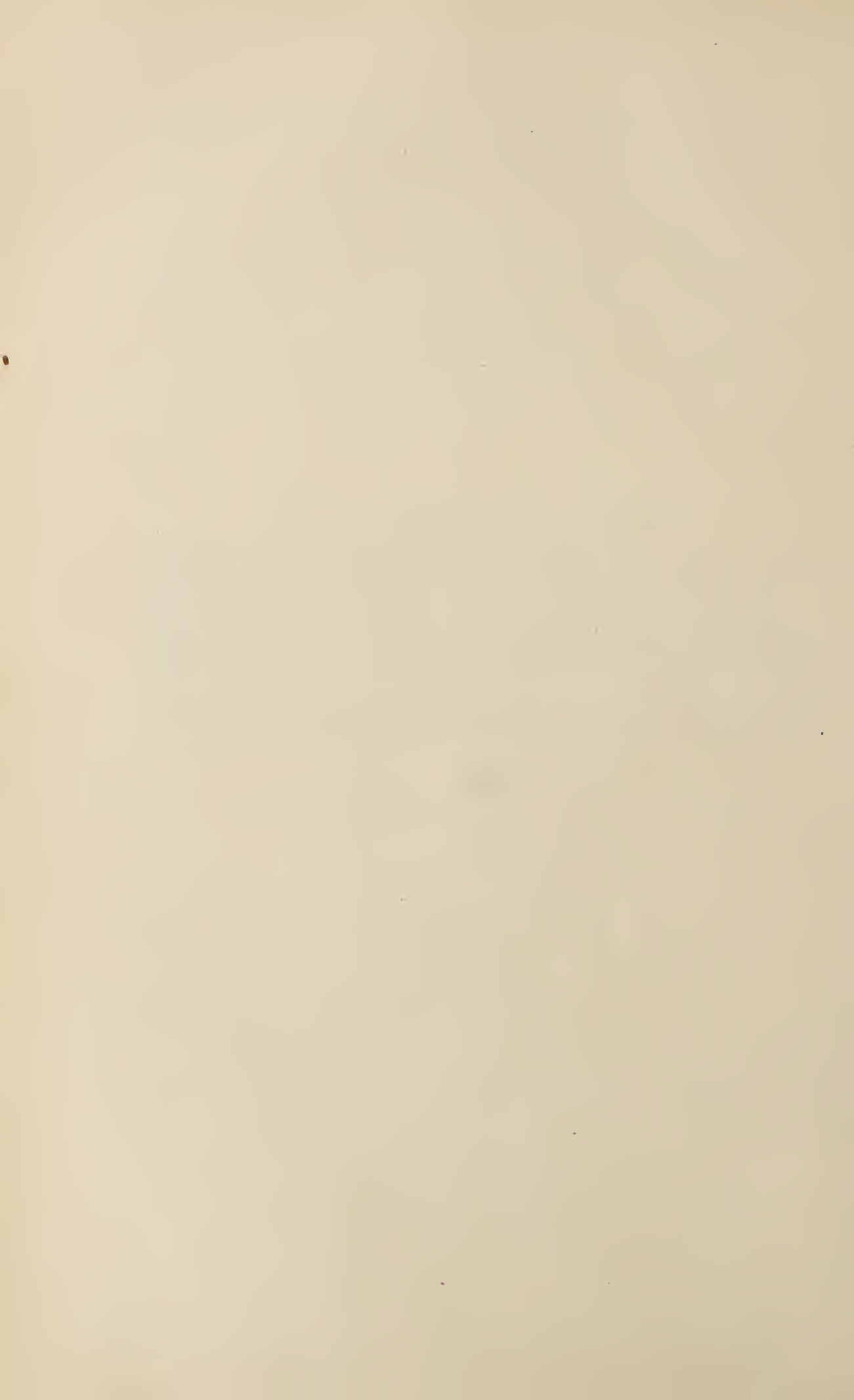
At the same time Japan is willing to cooperate with other powers to regulate strictly the use of submarines against merchant marine. As to tonnage, Japan proposes to maintain her existing strength. The maximum size of submarines shall be limited and their age limit shall be set at 13 years.



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Officer	Initials	Date received	Date forwarded
CAPTAIN.....			
EXECUTIVE OFFICER.....			
GUNNERY OFFICER.....			
NAVIGATION OFFICER.....			
FIRST LIEUTENANT.....			
ENGINEER OFFICER.....			
ASST. F. C. OFFICER.....			
CO MUNICATION OFFICER.....			
MEDICAL OFFICER.....			
SUPPLY OFFICER.....			
FIRST DIVISION OFFICER.....			
SECOND DIVISION OFFICER.....			
THIRD DIVISION OFFICER.....			
FOURTH DIVISION OFFICER.....			
FIFTH DIVISION OFFICER.....			
SIXTH DIVISION OFFICER.....			
MARINE OFFICER.....			
"V" DIVISION OFFICER.....			
"A" DIVISION OFFICER.....			
"B" DIVISION OFFICER.....			
"E" DIVISION OFFICER.....			
"M" DIVISION OFFICER.....			
"N" DIVISION OFFICER.....			
"R" DIVISION OFFICER.....			
RADIO OFFICER.....			
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III



Carded
N. S. W.

NAVIES AND INTERNATIONAL TRADE

It has become more or less a short sighted habit to regard war simply as a conflict of armed forces, just as it is a narrow-visioned habit of some people to regard armaments as the prime cause of war. War usually does involve a conflict of armed forces, but battle is not their final objective; it is but merely a means to an end. The ultimate objective of the armed forces, whether the forces are land, sea, or air forces, is to overcome the will to resist of the people in the enemy's country. Armed forces should be coordinated with the economic and political forces of their country when at war, to put such pressure on the enemy as to compel him to cease further resistance.

War between highly industrialized states inevitably produces a very potent economic struggle, and to forecast the probable outcome, or its possible consequences to both belligerents, requires a very accurate estimate of the economic factors, as well as the military factors involved.

The following pages, which briefly discuss some aspects of the economic life of the principal maritime powers, are included in the *BULLETIN* as of possible interest in this connection.

It is a well-known fact that the industrialization of nations, together with the irregular distribution of raw materials and profitable markets throughout the world, has tended greatly to increase the commercial interdependence of nations in their economic struggle for existence. Economic self sufficiency no longer exists in any of the maritime powers. Consequently, it is to their mutual interest to cooperate in the business of international commerce. This should be the battle cry of the real pacifist rather than the appeal for disarmament. Unfortunately, the intense rivalry in foreign markets and the irregular distribution of food supplies and essential raw materials for industry have also given rise to new causes for international friction.

In this connection, Andre Siegfried, the French economist who wrote *America Comes of Age*, has recently submitted to the League of Nations a study of the economic causes of war. He finds three main causes, each of which he develops in length:

1. Raw materials.
2. Communications (ships, planes, cable, etc., all of which lead him into the question of the freedom of the seas).

3. Expansion, whether of products, capital or men (emigration).

He believes that international action, especially through the league, may diminish them by tending to discourage strong countries from resorting to force and by teaching weak countries to be discreet in insistence on their sovereign rights. He says: "It is particularly the need of raw materials that can imperil peace or lead to the use of force"

A study of the wealth-producing and wealth-consuming factors of nations shows where they are strong and where they are weak, and we can determine fairly well the economic position of a nation in relation to other countries by the common denominator of international trade.

Because of intense international commercial rivalry, nations are keenly sensitive to economic pressure—sensitive in times of peace as well as in times of war. When one nation feels the burden of economic pressure resulting from the activities of another, friction is bound to arise. A diplomatic hint or note may relieve the situation. Possibly some mild form of counter economic pressure involving, perhaps, a discriminating freight rate or tariff barrier may result. Stronger measures might follow, such as the establishment of an embargo on exports and imports, a boycott, or other economic interference short of war.

It is but a step further to throw the weight of the armed forces into the balance and to employ them to bring still greater economic pressure to bear by severing vital lines of communication. If these vital lines are on the sea the naval effort will be directed against those lines. But unless the economic structure of the nation depends directly or indirectly upon the integrity of sea communications, the naval effort is likely to be futile. Such contribution to success as a navy then might make would be through auxiliary service to the army. The more direct method of cutting the enemy's internal lines of communication within his national boundaries is a function of the army. The latter is more decisive, and in an overseas campaign involves the combined efforts of the army and navy. It is a violent form of warfare because it brings the civil population into intimate contact with violent features of the war, whereas normal sea warfare is only indirectly felt by them through the economic pinch.

The development of industry has a twofold effect upon the war-making power of nations, and acts in opposite directions. It tends to increase the strength of the armed forces by its capacity to supply them with the weapons and essential materials for waging war, but the increasing dependence of industrial nations on essential raw materials and foreign markets tends to make them more vulner-

able to economic pressure resulting from a stoppage of their sea-borne trade.

If we examine the sources of supply of raw materials, international trade routes, and ocean-borne trade, the dependence of nations on exports and imports is apparent. While the sea is the great highway of international commerce, the significance of overland trade routes should not be overlooked. Most countries, not completely separated by the sea, are united by railways, which can not be blockaded by a fleet, and they offer an alternative route for the movements of supplies which make economic encirclement more difficult.

The stoppage of all communication by sea, of a nation, is a serious matter, even in the case of a continental power. In the case of an insular power the complete severance of her sea communications would be fatal. Great Britain, during the World War, escaped such a catastrophe by a narrow margin. Germany's merchant shipping was driven off the sea in the first two months of the war, yet she continued the struggle for four years. Not until the "rationing" system which prevented her receiving overseas supplies through neutral countries had become effective was Germany's economic encirclement completed. In the case of the huge territory of Soviet Russia, it is doubtful if an economic naval blockade could be made effective.

Analysis of the productive capacity and foreign commerce of maritime powers is necessarily a subject of great interest to all students of naval affairs, since it is the function of a navy not only to guard the nation's commerce when other navies are at war, thereby ensuring commercial liberty to that nation when neutral; but it is also the function of the navy to use its power to break down the economic, and the military resistance of the enemy when at war.

A. W. J.



GREAT BRITAIN

(Prepared by Lieut. Commander A. Macomb, U. S. Navy)

A study of British trade would naturally be divided into two parts, the trade of the United Kingdom and the trade of the British Empire as a whole, including the overseas Dominions, Colonies, and Protectorates. As space does not permit of a detailed examination of the trade of each of the component parts of the British Empire, the discussion will be confined more or less to the trade of the United Kingdom, the governing head of the Empire.

The Dominions consist of large tracts of thinly populated and only partially developed land, with a surplus of raw materials and a dearth of manufactured articles, while Great Britain is a comparatively small island, densely populated and highly developed industrially, having an excess of manufactured articles and a deficiency of foodstuffs and raw materials. The British Empire as a whole is practically self-supporting, so far as foodstuffs are concerned, with the exception of grain and meat. It produces sufficient raw materials, except cotton, copper, iron ore, and petroleum. The following table is indicative of the situation:

Raw materials produced in United Kingdom and British Empire

[In percentage of world production]

	United Kingdom	British Empire		United Kingdom	British Empire
	<i>Per cent</i>	<i>Per cent</i>		<i>Per cent</i>	<i>Per cent</i>
Coal.....	20	30	Tin ore.....	2	43
Petroleum.....	0	3	Aluminum.....	5	13
Iron ore.....	8	10	Sulphur.....	0	Trace.
Pig iron.....	8	10	Steel.....	9	10
Copper.....	1½	6	Cotton.....	0	8
Lead ore.....	Trace.	8	Rubber.....	0	55
Lead.....	Trace.	20	Sugar.....	1	15
Nickel.....	0	99	Wheat.....	1½	25
Zinc.....	4	11	Wool.....	4	45

The advantage of having large sources of raw materials within the Empire is more apparent than real, for the Dominions are situated at great distances from the mother country and from each other, and the difficulties of transportation, time, taxation, etc., interfere to a great extent with the utilization of these resources. In war these disadvantages are even greater than in peace, since the enemy's naval forces must be reckoned with, and, on the whole, it may be said that geographical proximity and not nationality controls the availability of supplies under these conditions,

Commerce is in many respects the greatest industry of Great Britain, and is, in fact, one of the basic reasons for the existence of the British Empire. It was the need of sources of raw materials and markets for manufactured products, and the necessity of establishing strategic centers and naval bases for the protection of the resulting trade that led to the ever increasing acquisition of land in all parts of the world, until the Empire now covers one-fourth of the earth's surface and comprises one-fifth of the world's population.

Great Britain is dependent on overseas commerce to a greater extent than any other nation; in fact it may be said that her existence depends upon sea-borne commerce since she is lacking in all raw materials except coal and iron ore and must import 60 per cent of her food supply. Furthermore, the only means of supporting the large industrial population and maintaining the balance of trade consists in exporting huge quantities of cotton textile products, iron and steel manufactures, machinery, shipping and foreign investments, etc. These together with coal, woolen textile products, and vehicles (including locomotives and ships) are the key industries supplying the bulk of the exports. Great Britain also has a large volume of reexports, and her position is that of a vast clearing house through which the products of her Dominions and Colonies (rubber from the East Indies and Malaya, wool from Australia and New Zealand, wheat from Canada and Australia, cotton from Africa and India, gold from Africa) reach the world at large.

Value of the imports and exports of Great Britain for the year 1927

[In millions of pounds sterling]

	Imports	Per cent	Exports	Per cent	Reexports	Per cent
Food, drink, and tobacco.....	539	44	52	7	27	22
Raw materials.....	352	29	76	11	71	58
Manufactured articles.....	322	26½	564	80	25	20
Miscellaneous.....	6	½	17	2		
Total.....	1,219		709		123	

From the above it can be seen that about one-half of Great Britain's imports are foodstuffs, nearly one-third are raw materials, and one-fourth are manufactured goods. Of her exports four-fifths are manufactured articles.

Percentage of value of imports into Great Britain in 1927 from various sources

Source	Raw materials	Food-stuffs	Source	Raw materials	Food-stuffs
	<i>Per cent</i>	<i>Per cent</i>		<i>Per cent</i>	<i>Per cent</i>
Europe.....	25	35	Africa.....	16	4
North America.....	19	25	Asia and Oceania.....	31	22
South America.....	9	14			

About one-third of the value of England's food imports come from Europe, about one-fourth from North America, less than one-fourth from Asia and Oceania, and about one-sixth from Latin America. This last group contains a number of the leading bulk foods in large volume. Four-fifths of the frozen beef, one-third of the mutton and one-fourth of the wheat bought by England come from Latin America. The United States and Canada each furnish about one-third of Britain's wheat. Much of her sugar and coffee come from the Western Hemisphere.

Percentage of British imports and exports, 1928, foreign and British countries

	Imports	Exports	Reexports
	Per cent	Per cent	Per cent
British countries.....	27	42	12
Foreign countries.....	73	58	88

Consumption of raw materials in Great Britain in 1927 showing percentage received from various regions and principal sources

	United Kingdom	Foreign countries	Overseas possessions		United Kingdom	Foreign countries	Overseas possessions
	Per cent	Per cent	Per cent		Per cent	Per cent	Per cent
Coal.....	100			Cotton.....		¹ 78	⁷ 22
Iron ore.....	67	33		Wool.....	28	⁸ 9	² 63
Copper.....		¹ 75	² 25	Rubber.....		25	⁵ 75
Petroleum.....		³ 97	⁴ 3	Wheat.....	16	¹ 42	⁶ 42
Lead.....		75	² 25	Sugar.....		⁹ 94	¹⁰ 6
Tin.....		40	⁵ 60	Beef.....	59	⁸ 34	² 7
Nickel.....			⁶ 100				

¹ United States.
² Australia.

³ Persia.
⁴ India.

⁵ Malaya.
⁶ Canada.

⁷ Egypt.
⁸ Argentina.

⁹ Cuba.
¹⁰ Mauritius.

In the event that Great Britain's imports from the United States were shut off she would be compelled to obtain the supplies from other sources, notably 2,000,000 tons of wheat from Canada, Argentina, and Australia, and 320,000 tons of cotton from Egypt, India, and Peru. To overcome this disadvantage Great Britain is making a systematic attempt to cultivate, as far as possible, all essential materials within the Empire, and thus achieve Empire economic unity.

The total foreign trade of Great Britain amounts to more than £2,000,000,000^{Six} a year, and this huge overseas commerce is carried on through ~~five~~ principal trade routes, which may be listed, in the order of their importance, as follows:

1. *Great Britain to the European Continent.*
2. *Great Britain to the American Continent.*
3. *Great Britain to the East and Australasia via the Suez Canal.*
4. *Great Britain to the East and Australasia via the Cape route.*
5. *Great Britain to the Pacific via the Panama Canal.*
6. *Great Britain to the Pacific via Cape Horn.*

These lines of communication, which extend to the four corners of the world are amply provided with fueling stations and naval bases, and they all converge at the British Isles in the "bottle neck" of the English Channel and the Irish Sea. It is here that the real problem of their defense lies, and it has always been the policy of the British Government to maintain a navy of such strength that the home waters of Great Britain would be kept open to commerce at any cost. An effective blockade of the British Isles would soon reduce their inhabitants to starvation. This in fact was nearly accomplished during the World War when Germany concentrated her submarine attack on shipping in British waters with results that were almost disastrous for Britain. However, a complete blockade of the British Isles is especially difficult, owing to access of important trade routes from three directions—east, west, and south.

Sixty-seven per cent of the overseas trade of Great Britain is carried in British ships, and on July 1, 1929, the British merchant marine consisted of 10,679 vessels of all classes with a total gross tonnage of 23,116,147—by far the largest in the world.

Value of trade of United Kingdom with principal countries for the year 1927

[In millions of pounds sterling]

	Character of imports	Imports	Exports	Total
Russia.....	.....	21	11.5	32.5
Finland.....	.....	16	3.5	19.5
Sweden.....	Iron ore, zinc, lumber, matches.....	25.5	10.5	36
Norway.....	Lumber.....	13	8	21
Denmark.....	Eggs, butter, cheese, bacon.....	50	11	61
Germany.....	Potash, coal.....	60	69.5	129.5
Netherlands.....	.....	44.5	26	70.5
Belgium.....	Steel, zinc.....	46.5	25.5	72
France.....	Silk, wines.....	63.5	42	105.5
Switzerland.....	.....	14.5	9	23.5
Spain.....	Iron ore, mercury, copper, lead, fruit.....	19	10.5	29.5
Italy.....	Sulphur, mercury.....	17	15.5	32.5
Egypt.....	Cotton.....	23.5	13	36.5
Dutch East Indies.....	Rubber, tin, petroleum, spices, sugar.....	14	9	23
China.....	Silk, tea, ginger, antimony, tungsten.....	12	10	22
United States.....	Wheat, fruit, meat, copper, tobacco, lumber, machinery, automobiles, cotton, steel products.....	200	67	267
Japan.....	Silk, tea, graphite.....	8	15.5	23.5
Brazil.....	Coffee, cocoa.....	4.5	15	19.5
Argentina.....	Wheat, maize, beef, mutton.....	76.5	27.5	104
Irish Free State.....	Cattle, dairy products.....	43	45.5	88.5
Union of South Africa.....	Wool, gold, asbestos, chromium, diamonds.....	21.5	32	53.5
British India.....	Spices, wheat, coffee, wool, manganese, tea, jute, hemp.....	66	86.5	152.5
British Malaya.....	Rubber, tin, tea.....	21.5	15.5	37
Ceylon.....	Tea, cocoa, rubber, graphite.....	16.5	6.5	23
Australia.....	Wool, wheat, fruit, gold, lead, meat.....	52.5	63.5	116
New Zealand.....	Meat, wool, butter, cheese.....	46.5	20.5	67
Canada.....	Wheat, lumber, nickel, asbestos, copper, lead, paper, fruit, cattle.....	55	31.5	86.5



JAPAN

(Prepared by Lieut. Commander E. M. Zacharias, U. S. Navy)

Japan, with her large population and limited area, a comparatively small portion of which is arable, possesses relatively few natural resources. In spite of this Japan imports only 15 per cent of her food stuffs. She has become highly industrial, however, and her natural resources, as well as her unprofitable fields, have been highly developed. The scarcity of raw material is the greatest handicap to her economic independence.

The importation of rice, the national food, amounts to only 5 per cent of her total consumption of that commodity and with economical use of domestic production her independence of the importation of food might be assured in case of necessity. The essential war materials that she would find it necessary to import in time of war are iron, oil, coking coal, hides, fertilizers, cotton, and machinery.

Of these seven essential war materials only oil, cotton, and machinery would pass over her southern route. Constant contact with the Asiatic Continent, with routes as far south as the Yangtse Valley would insure to Japan her essential war materials with the exception of the three mentioned above.

At the present time the economic prosperity of Japan depends largely upon the export of raw silk and textiles of silk and cotton. These two items account for 50 per cent of Japan's foreign trade and 70 per cent of exports. Of the raw silk which constitutes about 35 per cent of the total exports of Japan, the United States takes over 90 per cent. She is therefore peculiarly dependent upon favorable conditions in the countries which are the chief purchasers of these products, and it is unnecessary to emphasize the economic convulsion which would result from a sudden removal of this silk market. Furthermore, as the exports to the United States consist chiefly of one commodity—namely, raw silk, a trade which is of limited and doubtful expansion—the importance of Japan's trade with China is of the most vital importance. It is interesting to note that her cotton-goods trade with China has already become a serious competitor of Lancashire.

Japan is still largely agricultural, but her rapid and extensive industrialization has resulted from an intensive study and application of foreign methods. The efforts of her leaders have been to relieve her from the economic shoe string upon which her existence still hangs. But this expansion, with its activities in foreign fields,

has removed from Japan her former security of self containment and has created new conditions which increase her vulnerability to sea power.

Japan's total export trade for 1928 is roughly as follows:

To—	Per cent	Principal items
United States.....	42	Raw silk, pottery.
China.....	27	Cotton tissues, refined sugar.
Other Asia.....	15	Cotton tissues and yarns, knitted goods.
Europe.....	8	Silk tissues, knitted goods.
Other countries.....	8	Cotton and silk tissues.
	100	

This total amounts to 6,485,000 tons, or in value \$915,000,000. Not included in the above are exports to the following:

Country	Amount	Principal items
Korea.....	\$155,000,000	Rice, silk, fish.
Formosa.....	95,000,000	Sugar, rice.

Japan's imports for 1928, which are slightly greater than exports, totaled \$1,019,000,000 showing an unfavorable trade balance of \$104,000,000. An important feature of Japan's foreign trade to-day is the fact that more than half of the imports consist of raw materials, while semimanufactured goods, finished goods, and food and drink each account for about 15 per cent.

Japan's total import trade (excluding Korea and Formosa) for 1928 is roughly as follows:

From—	Per cent	Principal items
United States.....	31	Cotton, iron, steel, wood, machinery.
China.....	10	Bean cake.
Other Asia.....	30	Cotton, iron.
Europe.....	15	Iron and steel, machinery.
Other countries.....	14	Wood, wool, sugar.
	100	

This total amounts to 20,182,404 tons or in value \$1,019,000,000. Not included in the above are imports from the following:

Country	Value	Principal items
Korea.....	\$137,000,000	Flour, textiles.
Formosa.....	58,000,000	Rice, bean cake, fertilizer.

It is important to note however, that the trade of Korea and Formosa is chiefly with Japan, as the following percentages indicate:

Country	Imports from Japan	Exports to Japan
Korea.....	<i>Per cent</i> 70	<i>Per cent</i> 90
Formosa.....	65	80

In summarizing, the vulnerability of Japanese trade routes, without the United States as a source of supply—

- (1) The southern trade routes must bring—
 - (a) Oil from the Dutch East Indies and Burma to offset a usual 40 per cent supply from the United States.
 - (b) Cotton from India to offset a usual 30 per cent supply from the United States.
 - (c) Increased machinery supply from Europe to offset a 35 per cent supply from the United States.
- (2) The Yangtze Valley must supply over a million tons of iron to meet one-half the demand, together with other essentials of coking coal, hides, and fertilizer.
- (3) Kwantung, Asiatic Russia, Manchuria, Korea, and Saghalien must supply the remainder of the essentials, but the security of these sources is obvious.

From the above it is evident that the dependence of Japan upon the supply of raw materials from abroad and to a corresponding degree the necessity for transportation of finished products to ready markets has long been the controlling factor in the governmental interest in the merchant marine.

The Government renders assistance to the shipping companies in the form of mail subsidies and under this encouragement three fast liners of 16,500 gross tons have just been turned out.

Under the favorable conditions outlined above it is not surprising that of the total number of vessels engaged in the foreign trade of Japan (in 1928) 66 per cent of these were Japanese, and of the total foreign trade of Japan (in 1927) 67 per cent by value was carried in Japanese bottoms.

Entered
U. S. W.

FRANCE

(Prepared by Lieut. Commander W. Trammell, U. S. Navy)

France is the second largest country in Europe. Her geographic position is excellent in that she touches three commercially important bodies of water and has close land contact with several commercially important nations. Agriculturally she is practically self-supporting. She has large natural resources and is one of the greatest industrial nations. That her agriculture, industry, and commerce have completely recovered from the war is shown by the fact that before the war, and after the war as late as 1921, her exports amounted to only about 85 per cent of her imports, while since then the percentage of exports has increased until in 1927 they amounted to 104 per cent of the imports. This favorable trade balance is actually greater than the figures indicate due to a heavy favorable "invisible" balance resulting from the large sum spent by tourists, as well as from the large quantities of merchandise received from Germany on the reparations account, which are included in the list of imports, but for which France is not paying actual cash.

Although a great industrial nation and rich in certain materials, the industry depends largely upon imported raw materials, as is shown by the following figures for the year 1927:

Imports: Raw materials, 68 per cent; foodstuffs, 19 per cent; manufactured products, 13 per cent.

Exports: Raw materials, 28 per cent; foodstuffs, 8 per cent; manufactured products, 64 per cent.

France not only has sufficient fuel for her industrial needs, but is rapidly developing her large resources of hydroelectric power. Of the many raw materials required for industrial and war purposes she is almost wholly dependent on imports for the following: Petroleum, 2,586,000 tons; cotton, 351,000 tons; wool, 300,000 tons; rubber, 70,000 tons; silk, 15,000 tons; jute, 118,000 tons; hemp and sisal; camphor; and coffee, 155,000 tons. The following table shows the foreign trade of France by countries for the year 1928:

Country	Imports	Exports	Country	Imports	Exports
United States.....	\$243,054,000	\$130,594,000	Spain.....	\$63,632,000	\$68,717,000
Canada.....	24,319,000	26,451,000	Sweden.....	25,437,000	10,997,000
Argentina.....	80,240,000	44,930,000	Switzerland.....	37,819,000	132,430,000
Brazil.....	45,551,000	22,072,000	United Kingdom.....	213,537,000	320,097,000
Belgium and Luxembourg.....	150,000,000	284,074,000	French Indo-China.....	27,907,000	35,134,000
Czechoslovakia.....	8,760,000	8,575,000	Algeria.....	109,616,000	153,603,000
Germany.....	194,483,000	222,233,000	French West Africa.....	30,546,000	26,567,000
Italy.....	61,763,000	84,295,000	Madagascar.....	17,064,000	13,685,000
Netherlands.....	65,789,000	51,041,000	Morocco.....	17,365,000	44,080,000
Poland.....	7,752,000	19,431,000	Tunisia.....	22,449,000	30,425,000
Russia.....	28,098,000	6,826,000	Other countries.....	200,000,000	175,000,000

From the above table showing the value of trade with each country the relative importance of the various trade routes can be calculated. Assume that the trade with her immediate continental neighbors, Belgium, Holland, Germany, Poland, Czechoslovakia, Switzerland, Italy and Spain is, or could be, carried on by land transportation. This amounts to approximately 25 per cent of the total. The water-borne trade lying wholly within the Mediterranean, exclusive of above countries, i. e., with Russia, Turkey, Rumania, Bulgaria, Egypt, Greece, Morocco, Algeria, Tunisia, by the same approximation, amounts to about 13 per cent. This leaves 62 per cent to be carried by water outside the Mediterranean, of which 18 per cent goes through the Suez and the remaining 44 per cent into the Atlantic.

These percentages continually change as her trade with the various countries improves or falls off, but they give a fairly accurate idea of the degree to which she is dependent on foreign trade during peace and war. War conditions would bring about radical changes, and there are so many possible conditions under which she might be engaged in war that each one must be taken up as a separate problem in order to arrive at a sound conclusion.

The French Merchant Marine is sixth in gross tonnage, being slightly less than Italy's, and consists of 1,682 vessels with a gross tonnage of 3,344,865. In general, the merchant marine is active and prosperous. The Government encourages with subsidies the construction of new vessels. The majority of officers in the merchant marine hold special commissions as officers in the naval reserve. Every Frenchman domiciled in certain districts on the sea coast must serve his compulsory military service in the navy. Every man who has served his compulsory service in the navy is automatically transferred to the naval reserve and remains in that reserve until he has reached the age of 50 years. The personnel of the merchant marine is composed of men who are eligible candidates for the Seamen's Union (Inscription Maritime); i. e., men who have either served or may be called to serve in the navy.

So much has been written since the war about debt funding, inability to pay, and heavy taxation, that we have grown to think of France as poverty stricken and verging on to bankruptcy. She is no longer "war poor." She is rich and thriving. The facts are:

(1) That between April, 1917, and the Armistice she borrowed from the United States \$1,970,000,000 and after the Armistice another sum of \$1,027,477,800 and purchased on credit \$407,341,145 worth of supplies. This debt totaled \$3,404,818,845. Interest on this sum at the low rate of 3 per cent would have amounted to \$102,144,568 annually, but by the debt-funding agreement which was signed in 1926, and ratified later, the debt was reduced to a sum, pay-

able in gradually increasing installments over a period of 62 years, beginning with \$30,000,000 per year and reaching a maximum of \$125,000,000 in the seventeenth year. The present value of the debt on a 4½ per cent basis is about \$2,000,000,000. By a similar agreement she pays an annual sum to Great Britain. During 1926–27 she paid to the United States \$30,000,000 and to Great Britain \$71,000,000, a total of \$101,000,000. In the same year she received from Germany \$176,000,000, which was \$75,000,000 in excess of the sum paid out. The annual payments to the United States and Great Britain increase from year to year, but the reparation receipts from Germany increase more rapidly, so that in 1930, after meeting her obligations, there will be a balance of \$237,000,000 from reparation payment.

(2) That her per capita national debt (internal and external) is about \$280, as compared with Italy, \$120; United States, \$130; Japan, \$470; and Great Britain, \$850.

(3) That her direct material gains from the war were not inconsiderable—she having taken from the Saar basin alone, in 1928, 13,104,000 tons of coal, 1,932,000 tons of pig iron, and 2,086,000 tons of steel, and with the acquisition of Alsace and Lorraine her iron-ore output has increased to a place second only to the United States.

(4) That the reconstruction work in the devastated areas was practically completed by the end of 1924.

(5) That her present population, exclusive of colonies, about equals the pre-war population.

(6) That her agricultural output is about equal to the pre-war output.

(7) That her foreign trade is 50 per cent greater than before the war.

(8) That the gross tonnage of her merchant marine is about 50 per cent greater than before the war.

(9) That she maintains an army of 666,045 active forces and 5,010,000 reserves, totaling 5,676,045 organized men, which is the strongest armed force in the world, and which in 1929, cost about \$230,000,000.

(10) That she is enthusiastically building and developing a modern navy, the budget for which, in 1929, amounted to about \$100,000,000.

(11) That she not only manufactures sufficient military equipment for her own needs but, in 1926, exported arms and ammunition amounting to nearly 26,000,000 pounds.

(12) That her plan for industrial mobilization is the most complete and far reaching of any in existence.

Ever since the war the French have been deeply concerned about their security on the Continent. This feeling of insecurity is con-

tinually kept before the world by daily press comment, their statesmanship, and a large army. Their feeling of insecurity on the sea has also been indicated for some time by their naval building program, but only recently has the French nation as a whole awakened to the necessity of a stronger navy if their widely scattered empire is to be held together and developed.

The French are a practical people in their daily lives, in commerce, and in war. Their sense of insecurity deprives them of the luxury of Utopian dreams of peace by disarmament and universal good will. The only guaranties which they recognize are armed forces or alliances stronger than their prospective enemy.



ITALY

(Prepared by Lieut. Commander W. Trammell, U. S. Navy)

It may be said that no other country is so dependent on foreign trade as Italy. Due to density of population and a large percentage of unproductive land it is necessary to import large quantities of foodstuffs. In 1928, one-third of the wheat consumed was imported. Other foodstuffs imported on a large scale are other grains, meats, and sugar. As an industrial country, Italy is handicapped by having to import practically all her fuel and most raw materials. However, the fuel problem is being rapidly improved by the development of her large hydroelectric resources. Industry has naturally been developed to a high degree, and in 1927 consisted of 731,885 establishments devoted principally to textiles, transportation, and communication, clothing, machinery, foodstuffs, construction, and wood products; and employing more than 4,000,000 persons. The number of unemployed was about 400,000.

In total foreign trade Italy ranks fifth, or just after France, and is slightly ahead of Russia, China, and Japan. In 1928 the total imports of Italy amounted to 25,159,000 tons valued at \$1,159,425,000, and her exports amounted to 4,354,000 tons valued at \$764,233,000. Of this large amount of imports all except 17 per cent were either foodstuffs, industrial raw materials, or partly manufactured articles. There has been only a slight increase in her foreign trade since 1925.

The above figures give a fair idea of how essential her continual supply of imports are to her existence. There are no statistics available to show what percentage of her trade is water borne, but allowing a liberal estimate of her overland trade—assuming that her trade with Austria, Czechoslovakia, France, Germany, Hungary, Switzerland, and Yugoslavia is carried overland (Germany and France rank second and third in the Italian trade), and no doubt this is an overestimate—then her overland trade amounts to only about 30 per cent of the total. It is interesting to note that her sea-borne Mediterranean trade with Greece, Rumania, Russia, Spain, Turkey, and Egypt amounts to about 4 per cent of the total. Thus the total of her overland and Mediterranean trade could hardly exceed 34 per cent of her total foreign trade. About 8 per cent passes through the Suez Canal and the remaining 58 per cent passes through the Straits of Gibraltar.

The above peace-time condition would naturally change in case Italy went to war with a naval power. Although in time of peace she produces all except about 15 per cent of her required foodstuffs, she does so under a tremendous outlay of effort. During the World War her deficiency rose to 40 per cent. She would require nearly 3,000,000 tons of wheat which could be obtained only from the United States, Canada, Argentina, and Australia, over long trade routes which could be effectively cut outside the Mediterranean. Rumania and Russia could not supply her. Other grains and meats are also normally imported from North and South America. Other large items are 12,000,000 tons of coal from Great Britain and Germany; 100,000,000 tons of oil from the United States, Persia, the East Indies, and the Black Sea countries—roughly one-half comes from the Black Sea; 1,300,000 tons of iron from Sweden. Although many other war and industrial materials would be required, the foregoing constitute the greatest volume and would therefore necessitate a continual flow along sea routes. The possibility of obtaining and transporting the many materials of lesser volume would depend on the conditions under which she was making war. A limited portion of all the above could probably be supplied by European countries and imported by rail if the political situation were favorable.

From the following tables showing the amount exported and imported in 1928, and the countries with whom the trade was conducted, her important sea routes can be easily traced:

Country	Imports		Exports	
	Commodity	Value	Commodity	Value
United States----	Wheat, cotton, petroleum products, coal, copper, lead, tungsten, corn.	\$211, 198, 000	Cheese, fruits, hemp, silk, mercury.	\$80, 136, 000
Canada-----	Wheat-----	51, 000, 000		2, 555, 000
Argentina-----	Corn, meats (beef, mutton, horse), wheat.	100, 160, 000	Rice-----	51, 671, 000
Brazil-----	Meats (beef, mutton, horse)---	18, 660, 000		14, 504, 000
Austria-----	Wool-----	24, 427, 000		22, 848, 000
Czechoslovakia-----		16, 772, 000		8, 951, 000
France-----	Wool, coal, lead, aluminum---	108, 304, 000	Rice, hemp, silk, and artificial silk, sulphur.	71, 578, 000
Germany-----	Coal, aluminum, iron, anti-mony.	115, 993, 000	Hemp, silk, and artificial silk, mercury, sulphur.	97, 748, 000
Greece-----		4, 857, 000		10, 504, 000
Hungary-----		5, 124, 000		6, 797, 000
Rumania-----	Corn, petroleum products---	20, 623, 000		11, 335, 000
Russia-----	Petroleum products, manganese.	11, 714, 000		4, 419, 000
Spain-----		12, 719, 000		13, 321, 000
Switzerland-----	Aluminum-----	28, 620, 000	Silk and artificial silk---	52, 005, 000
United Kingdom-----	Wool, coal, aluminum, copper---	93, 480, 000	Hemp, mercury, sulphur---	70, 438, 000
Yugoslavia-----	Corn, fish-----	28, 346, 000	Rice-----	16, 036, 000
India and Ceylon-----	Cotton, manganese-----	64, 542, 000	Corn-----	27, 675, 000
Egypt-----	Cotton-----	17, 323, 000		25, 954, 000
Other countries-----		¹ 100, 000, 000		¹ 80, 000, 000

¹ Approximately.

From the foregoing it becomes clear that Italy would be helpless in a war against any nation that could cut her lines of communication at Gibraltar and Suez, and she has developed her national policy accordingly. Although overpopulated and possessing extremely limited natural resources, and therefore wishes to acquire new territories, she has exerted pressure only against the weaker peoples of eastern Europe, Asia Minor, and north Africa, except that in north Africa this pressure against French territory has resulted in a certain amount of friction with France.



Carded
H. S. W.

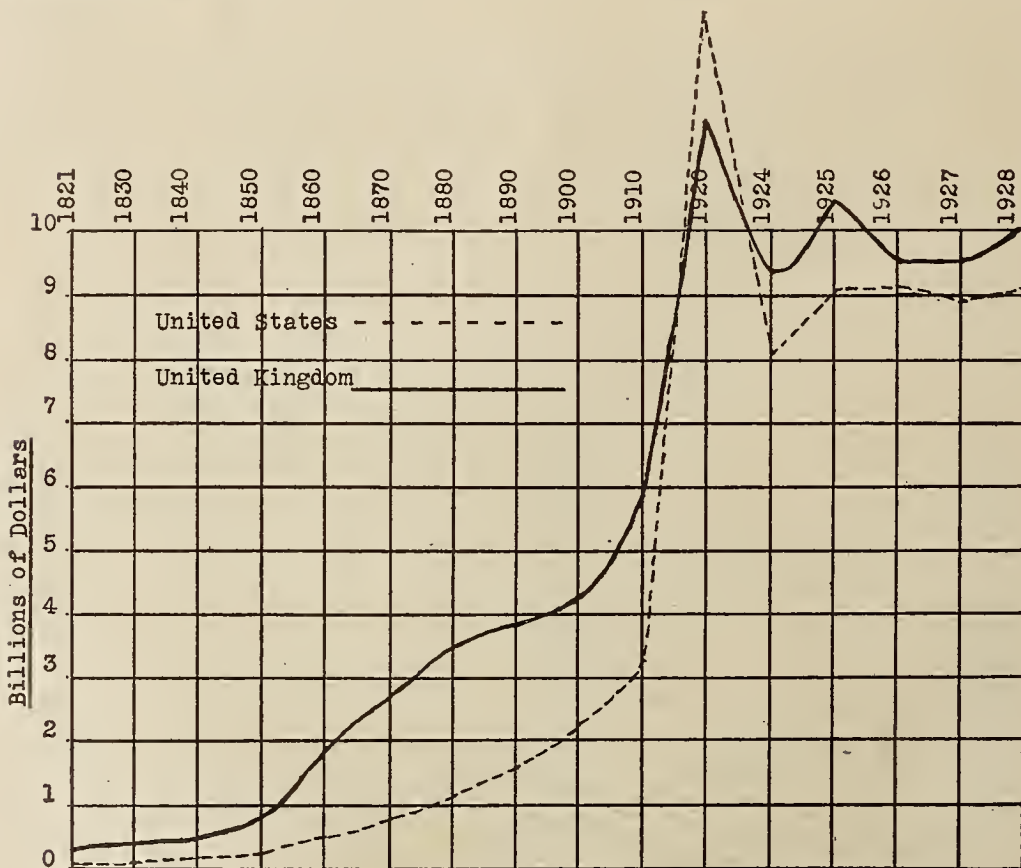
UNITED STATES

(Prepared by Lieut. Commander H. R. Hein, U. S. Navy)

Our foreign trade, overland and water-borne, in 1928, was valued at \$9,220,000,000. This represented 13.7 per cent of the value of the international trade of the world, while the share of the United Kingdom, the leading trader, was 14.1 per cent.

Statistics show that in 1900 our foreign trade was valued at \$2,224,000,000 as compared to \$4,271,000,000 for the United Kingdom. In 1913 Germany ranked second in foreign trade after the United Kingdom and the United States ranked third. The World War, with its paralyzing effect on German foreign trade furnished the principal reason for our passing Germany, but the normal increase in value of our foreign trade has been so rapid that the war served merely to accelerate it. Since 1900 the value of our foreign trade has increased over fourfold, while that of the United Kingdom has only a little more than doubled.

The following graph shows how the foreign trade of the two nations has grown since 1821:



Curve showing foreign trade of United States and the United Kingdom

Until after the Civil War the industrial developments in the United States were on a comparatively small scale. The people had applied themselves primarily to opening up and developing the central and western part of the country, home consumption absorbing most of the industrial output. Imports, principally manufactured articles, were valued at three times the exports which, in the main, were crude materials.

From 1870 to 1900 while British foreign trade increased 60 per cent that of the United States increased 300 per cent, but this amount was only one-half of that of British foreign trade. During this period the United States changed from an importer to an exporter of foodstuffs. Manufactured articles formed the bulk of the imports and foodstuffs and crude materials the bulk of the exports. About the year 1900, for the first time, the United States exported more finished manufactured articles than she imported, and entered the race for industrial supremacy, passing Germany and the United Kingdom in the production of iron, steel, and coal, most of which was absorbed in home markets. These products began to compete seriously with those of France, Italy, and the United Kingdom at the time of the World War.

To-day our principal exports are manufactured articles and we import more foodstuffs than we export, as will be seen from the following table:

Class of items	Exports	Imports	Class of items	Exports	Imports
Crude materials.....	\$1,293,000,000	\$1,467,000,000	Semi manufactures..	\$717,000,000	\$763,000,000
Crude foodstuffs.....	293,000,000	549,000,000	Finished manufac-		
Manufactured food-			tures.....	2,260,000,000	907,000,000
stuffs.....	467,000,000	406,000,000	Total.....	5,030,000,000	4,092,000,000

The extent and value of our annual foreign trade amounting to \$9,200,000,000 may be appreciated when compared to the total value of farm products raised in the United States. In 1928 these amounted to \$13,000,000,000. The total value of its mineral products for the same year amounted to \$5,400,000,000.

Of goods produced in the United States, which might be classed as exportable, 11 per cent were exported, the remainder being disposed of in home markets.

The United States produced 57 per cent of the world's output of machinery, of which amount more than 25 per cent was exported by the United States. Of total world production of automobiles, the United States produced 80 per cent.

The world-wide distribution of our foreign trade is shown by the following table:

Percentage of United States foreign trade with different regions

Year 1928	Exports	Imports	Year 1928	Exports	Imports
Europe.....	47.9	30.5	Canada.....	16.4	12.2
Asia and Oceania.....	16.2	29.9	Others.....	2.4	2.2
Latin America.....	17.1	25.2			

The above table includes both overland and water-borne foreign trade.

A little more than 70 per cent of our foreign trade is overseas.

It is of interest to examine this overseas portion of our foreign trade. The following table shows the relative importance of the principal overseas ocean trade routes, considering tonnage of foreign trade carried but excluding tanker cargoes:

Trade regions	Tonnage carried, 1928 (excluding tanker cargoes)	Trade regions	Tonnage carried, 1928 (excluding tanker cargoes)
	<i>Tons</i>		<i>Tons</i>
Northern and central Europe.....	19,400,000	South Europe, Mediterranean.....	4,400,000
Caribbean and northern South America.....	11,000,000	East coast, South America.....	3,800,000
Asia, East Indies.....	7,900,000	West coast, South America.....	3,000,000

The following table shows that about 34 per cent of our foreign trade for 1928 was carried in United States ships:

Total foreign trade showing method of carriage

Foreign ships	\$5,187,931,000
United States ships.....	2,592,512,000
Overland	1,201,934,000
Parcel post	139,167,000
Total	9,121,544,000

How this has varied in the past is shown below:

Year	Per cent of United States foreign trade carried in United States Ships	Remarks
1830.....	89.9	This is the period of wooden ships. Due to skill in shipbuilding and accessibility of good timber, United States shipping competed successfully with foreign shipping. Our merchant marine was stimulated by Far East profits, by the discovery of gold in California and by wars in Europe.
1840.....	82.9	
1850.....	72.5	
1860.....	66.5	
1870.....	35.6	
1880.....	17.4	This period marks the transition period from wooden to iron ships. The accessibility of British coal and iron mines to the seacoast and the early industrial supremacy of Great Britain accompanied by our interest in internal development, resulted in the decline of United States shipping.
1890.....	12.9	
1900.....	9.3	
1910.....	8.7	
1920.....	42.7	
1924.....	36.3	This period marks the opening of the Panama Canal, the World War, and the rapid development of our coal and iron industries which caused the revival of our merchant marine.
1925.....	34.1	
1926.....	32.2	
1927.....	34.1	
1928.....	33.3	

Although our resources are greater than those of any other country as regards iron ore and fuel, which are vital to industrial development, we are dependent upon other countries for certain essential military materials.

The following table lists such materials, shows the trade regions from which the greater portion of them are obtained, and the percentage of world production used by the United States:

Trade regions	Percent- age of world produc- tion used by United States	Percent- age of United States supply from this region	Military use
Asia, East Indies:			
Antimony.....	45	67	Munitions, bearings, storage batteries.
Camphor (crude).....	60	96	Aircraft dope, powder containers, medicinal.
Jute.....	15	86	Sand bags, food containers.
Manila fiber.....	36	100	Cordage, rigging, ropes.
Rubber.....	70	85	Tires, gas masks, boots, airplanes, medicinal, sur- gical.
Shellac.....	46	86	Varnish for fuzes, primers, electrical devices.
Silk.....	70	90	Cartridge bags, parachutes.
Tin.....	53	66	Food containers, solder, bearings.
Manganese.....	21	14	Steel industry, chemical industry, dry batteries.
Northern and central Europe:			
Manganese.....	21	38	Do.
Nickel.....	72	85	Gun steel, armor plate, ammunition.
Quicksilver.....	21	51	Fulminate, paint, storage batteries, medical.
Quinine.....		81	Medicinal.
Caribbean and northern South America:			
Cocconut shells.....		92	Gas absorbent for gas-mask canister.
Sugar.....	24	61	Food.
Sisal.....	55	74	Ropes.
East coast, South America:			
Manganese.....	21	22.5	Steel industry, chemical industry, dry batteries.
Coffee.....	45	72	Food and stimulant.
West coast, South America:			
Nitrates.....	20	40	Explosives and other chemicals.
Iodine.....	41.3	76	Medicinal.

Let us consider these tables in respect to the protection of trade routes.

We have seen that more than 70 per cent of our foreign trade is overseas.

With the exception of the Caribbean-northern South America region all the principal ocean trade routes serve trade regions which are far distant from the United States.

From the southern Asia-East Indies region we obtain 85 per cent of our crude-rubber supply and 66 per cent of our tin supply. Were the trade to this region cut off it would seem that our enormous automobile industry would soon collapse and our canning and electrical industries greatly suffer.

We produce over 50 per cent of the steel made in the world. Without manganese this enormous industry would collapse. The trade routes to the Far East, to the northern and central Europe region, and to the east coast of South America are all used to obtain this commodity.

While the trade routes to the Caribbean region would seem least important as regards both industrial and military sources of supply, yet it should be remembered that we have a domestic water-borne coastwise trade passing through the Panama Canal which is annually worth over \$5,000,000,000 and which if cut off would materially disrupt our industrial and commercial welfare.

Since foreign shipping carries about 67 per cent of our foreign trade, we are also largely dependent upon the good will of foreign nations for our commercial prosperity.

Table showing number of ships and tonnage transiting Panama and Suez canals, in 1928, for countries indicated.

Countries	Panama Canal		Suez Canal	
	Number of ships	Net tons	Number of ships	Net tons
Great Britain.....	1,842	8,976,960	3,393	18,124,074
Japan.....	188	909,232	158	940,070
France.....	127	580,769	359	1,926,969
Italy.....	118	580,721	363	1,649,792
United States.....	2,753	13,752,957	123	729,353



MERCHANT-SHIP TONNAGE OF THE FIVE PRINCIPAL POWERS

(Prepared by Commander Lucius C. Dunn, U. S. Navy)

Merchant-ship tonnage may be grouped under four broad classifications, viz:

- (a) General cargo carriers.
- (b) Passenger and combination carriers.
- (c) Tankers.
- (d) Vessels having refrigeration.

The general cargo carriers, which are the very backbone of the world's sea-borne commerce, head the list. The total tonnage of each of the foregoing classifications comprising the merchant marines of the five principal maritime powers, as of January 1, 1930, is shown in the following table, the combined tonnage of the five powers amounting to 36,152,825 tons:

[2,000 gross tons and over]

Class	United States		Great Britain		Japan		Italy		France	
	Num-ber of ships	Tons	Num-ber of ships	Tons	Num-ber of ships	Tons	Num-ber of ships	Tons	Num-ber of ships	Tons
General cargo.....	1,176	5,884,822	2,075	10,116,624	469	2,119,334	358	1,675,181	333	1,303,374
Passenger and com- bination.....	166	1,285,437	470	4,732,853	141	806,284	113	830,705	163	1,253,455
Tankers.....	341	2,293,284	369	2,285,845	14	96,719	49	245,839	29	169,725
Vessels having re- frigeration.....	12	62,565	120	921,914	-----	-----	11	62,023	2	6,842
Grand total...	1,695	9,526,108	3,034	18,057,236	624	3,022,337	531	2,813,748	527	2,733,396

The above tabulation, obtained from the research division of the United States Shipping Board, shows that Great Britain's ocean-going merchant tonnage is nearly twice that of the United States, or expressed in percentage, the tonnage of the five powers is approximately as follows: Great Britain, 50 per cent; United States, 26.4 per cent; Japan, 8.3 per cent; Italy, 7.8 per cent; France, 7.5 per cent.

It is of particular interest in point of logistics to note that the United States ^{exc. cargo} is nearly equal to Great Britain in respect to "tankers," ~~both in number of ships and~~ in total tonnage of that class. The individual gross tonnages of tankers ranges from 2,000 to 16,436 tons. Great Britain possesses one tanker of 16,436 tons, while the largest tanker registered under the United States flag has a gross tonnage of 14,305 tons. It is also pertinent to add that the tanker tonnage of

Japan, Italy, and France are relatively small in comparison with the United States and Great Britain.

MERCHANT VESSELS AVAILABLE AS CRUISERS OR ARMED TRANSPORTS

The following tabulation represents the number of vessels having an individual gross tonnage of 4,000 tons and above, with speed of 15 knots, which in event hostilities might be utilized by the various powers as cruisers or armed transports:

Nation	Number of vessels	Tonnage	Nation	Number of vessels	Tonnage
United States.....	83	884,064	France.....	42	434,746
Great Britain.....	245	3,170,603	Italy.....	27	394,049
Japan.....	26	241,106			

The table shows that the merchant tonnage of potential value as cruisers and armed transports is in the ratio of nearly 4 to 1 in favor of Great Britain, as compared with the United States.

MERCHANT SHIPS OVER 20,000 TONS

Included in the above tabulation are the following merchant vessels—formidable potential cruisers—having a displacement of over 20,000 tons, and speeds as shown in parentheses:

Year built	United States	Great Britain	Japan	France	Italy
1903.....		Cedric (17).....			
1904.....		Baltic (17).....			
1905.....	America (17).....	Empress of Scotland (17).....			
1906.....		Adriatic (18).....			
1907.....		Mauretania (25).....			
1908.....	George Washington (18).				
1911.....		Olympic (22).....			
1912.....		Berengaria (23).....		France (20).....	
1914.....	Leviathan (23).....	Aquitania (23), Empress of Australia (18).			
1917.....		Belgenland (17).....			
1921.....		Majestic (25).....		Paris (21).....	Giulio Cesare (19).
1922.....		Empress of Canada (20), Homeric (20).			
1923.....		Minnewaska (16), Mooltan (16), Maloja (16), Franconia (16).			Duilio (21).
1924.....		Minnetonka (16), Otranto (20).			Conte Biancamano (20).
1925.....		Asturias (17), Carinthia (16).			
1926.....		Carnarvon Castle (18), Alcantara (17).		Ile de France (23).	Roma (21).
1927.....	California (18).....				Saturnia (19), Augustus (19).
1928.....	Virginia (19).....	Duchess of Richmond (18), Duchess of Bedford (17), Duchess of Atholl (17).			Conte Grande (21), Vulcania (19).
1929.....	Pennsylvania (18).....	Duchess of York (18).....		Lafayette (18).....	
Total..	6	27	0	4	8

In addition to the above, it is reported that Italy intends to lay down two ships of 47,000 tons each, while Great Britain has the following ships building or contracted for:

Empress of Japan (26,000 tons), launched December 17, 1929.

Oceanic (60,000 tons), has not been launched; work suspended.

Empress of Britain (40,000 tons), has not been launched.

Warwick Castle (20,000 tons), due to be launched early in 1930.

Winchester Castle (20,000 tons), launched November 19, 1929.

Britannic (26,840 tons), launched August 6, 1929.

The contents of this paper are based upon statistical information supplied by the United States Shipping Board.



NAVAL ARMAMENT LIMITATION

(NOTE.—*Since the previous issue of the BULLETIN the following important pronouncements have issued from the London Naval Conference.—Ed.*)

SENATOR ROBINSON'S LONDON SPEECH ON AMERICAN OPINION

On February 19, 1930, Senator Joseph T. Robinson, a member of the American delegation to the London Naval Conference, addressed a luncheon meeting of the Association of American Correspondents in London, in which he set forth an interpretation of American public opinion on naval limitation. Following is the text of Senator Robinson's address as made public by the State Department at Washington:

In asking me to discuss what the United States expects of the London conference you have assigned a task which is difficult to perform in the limited time which it is appropriate to speak.

Always one's interpretation of public opinion is likely to be influenced by his personal bias or prejudice. This is a form of vanity unconsciously yet frequently indulged by speakers. In the absence of authentic evidence of the state of the public mind touching any subject one necessarily avails of those sources of information which he believes reflective of general thought. It is in the choice of these sources that one may yield to the agencies most nearly in harmony with his own position.

There exist in the United States as in other countries groups holding decisive but diverse opinions touching matters pertaining to the best methods for the promotion of international peace and good will—groups whose convictions are at variance with what may be accepted as the consensus of opinion among the masses. These groups embrace members somewhat contemptuously designated by those of opposing notions as "pacifists," "internationalists," and "big navy" champions. It does not appear necessary to elaborate this classification or to enter upon an explanation of the distinctions since the terms are suggestive of the general principles which distinguish the groups. Moreover, if it is possible to state what the public in the United States expects this conference to accomplish, such a statement necessarily implies that these various groups taken singly or combined are not true guides to accurate conclusions but are to be regarded as representative of policies not approved by the body of our citizens.

In spite of the notable groups referred to and others whose positions are irreconcilable as to what the conference should do, the great majority of our population who have given thought to the questions involved have a fairly well defined and harmonious impression of the range of possible achievements and disappointment will be inevitable if the decisions depart very widely from their convictions of what is reasonable and practicable. With these thoughts in mind the following seems true:

First. The American people in mass realize that permanent peace is inseparable from confidence in security. They believe that the fair limitation of all classes of armament by treaty will of itself add to and stir up national security and promote good will upon which lasting peace must rest. There is one principle almost universally adhered to, namely, competition in armament is calculated to arouse fear and may lead to war, hence the primary purpose for which the London conference was convened is heartily supported. We are expected to agree on programs for the limitation of all fighting ships.

Second. They not only believe that the prevention of competition should be extended to all forms of combat vessels but that when just and well considered limitation has been assured it will prove helpful in arranging for reductions which would be impossible unless all categories are limited.

Third. Our people anticipate the extension of the arrangement in the Washington treaty for capital ships so as to establish the same relation substantially between the United States, Great Britain, and Japan in cruisers, destroyers, and submarines as now exists with regard to capital ships.

"Parity" or equality in naval armament as between Great Britain and the United States is accepted as logical for the avoidance of possible competition between the two powers.

Fourth. They believe that when the limitation of cruisers, destroyers, and submarines is in plain sight further reductions in battleships below the Washington treaty plan will be logical and desirable.

Fifth. Our people realize that war can not be made a pleasant pastime, but they would like to see inventive genius diverted from efforts to produce more deadly weapons through agreements to refrain from the use of such agencies and instruments as neither courage nor skill can effectively resist. They have comprehended the inhuman character of the submarines attack against merchant ships without regard to safety of crews and passengers; and quite generally condemn bombardments from the air directed against unfortified cities and noncombatants. Americans and other peoples are becoming conscious of the amazing absurdity of exhausting scientific efforts to invent more deadly and destructive weapons of war, while at the same time seeking in every possible way to repair the injuries and mitigate the sufferings of the victims of studied cruelty and inhumanity.

Sixth. American public opinion strongly supports a policy of reducing naval armament and they will be slow to accept any arrangement which does not have this end in view. They will realize, however, that by the limitation now of the categories left unregulated in the Washington treaty and by further reduction of capital ships below the number in that treaty we may point the way to further conferences when it has been demonstrated that security is more likely to be found in reduced rather than in unlimited programs for naval armament.

Seventh. My understanding is that the people of the United States quite generally adhere to the traditional policy of our Government to avoid if possible involvement in European politics. They would repudiate emphatically any treaty expressly or impliedly obligating our Government to employ the Army or the Navy for the enforcement of obligations assumed by other nations. It is for this reason that they do not encourage their delegates to this conference to join in guaran-

tees of security respecting areas remote from territory or possessions of the United States. Americans realize that no power will deliberately violate its undertaking for the limitation or reduction of armaments. They believe that no sanction is necessary to assure the good-faith performance of any treaty for that purpose. This attitude does not imply indifference or lack of sympathy for the problems of others. It is grounded on the American conception of sound policy and constitutional limitations.

We are at peace with all mankind and confidently expect this condition indefinitely to continue. There exists no secret motive on our part against any people. We intend to keep faith both in letter and spirit with the pledge not to resort to war as an instrument of national policy and to seek the settlement of any dispute that may arise only by peaceful means. We can not understand the consistency in wars to enforce the peace. We believe that the dignity, independence, and security of nations, certainly of our own, lies along the pathway of cooperation, mutual understanding, and the employment of good offices. These are calculated to preserve peace without undue impairment of sovereignty.

TEXT OF ITALIAN STATEMENT

The Italian Government's statement submitted to the London Naval Conference was made public, on February 19, 1930, by Foreign Minister Dino Grandi, head of the Italian delegation. Following is a press report of the statement:

The Italian delegation confirm their previous statement. They consider that armaments should be exclusively defensive and should therefore be reduced to the lowest possible level.

If the conference should not lead to agreements determining ratios of strength of the several navies and lowering the level of naval armaments it will fail in its purpose, and the hopes it has raised will be disappointed. Armament levels and ratios are the basis of the Washington treaty and were the object of negotiations preceding and preparatory to the present conference.

From the outset the Italian delegation has called the attention of the other delegations to these two points, which they consider not only essential to the ends of the conference but which are also intimately connected with determination of the methods of limitation to be adopted.

With reference thereto the Italian delegation wish to restate that Italy is prepared "a priori" to accept as a limit for her armaments any figure, no matter how low, provided it be not exceeded by any other continental European power.

ITALY'S SITUATION UNFAVORABLE

Italy's geographical situation is particularly unfavorable. She has not the advantage of an ocean frontier, she is dependent for her very existence on supplies, three-fourths of which are conveyed from overseas along vulnerable trade routes dominated at short distance by naval bases of various powers.

Moreover, Italy possesses no extra Mediterranean naval bases, a fact which renders the task of protecting her merchant shipping on the high seas particularly arduous. Italy's problem is that of insuring

her existence, and, not only that, of safeguarding distant territories subject to her sovereignty or influence. Moreover, Italy, as a signatory of the treaty of Locarno, has incurred, together with Great Britain, special international commitments to guaranty the peace of continental Europe.

Notwithstanding her greater and special defense needs, Italy is prepared to accept the self-limitation of her right to arm and to reduce her armament to any figure, however low, provided it be not exceeded by any European continental power.

She strongly advocates reduction of naval armaments because, as a member of the League of Nations, as one of the signatories of the Kellogg-Briand pact, Italy considers such reduction as the natural outcome of those treaties. It is by reduction of armaments that nations can show the value they attach to the aforesaid treaties and prove their loyalty with the pledge they have given. The idea of an armed conflict with any power, whether represented or not at the London conference, is totally foreign to the established naval power of Italy.

The Italian delegation outlines below the application of the principles above set forth to the stage now reached in our negotiations. Dealing first with vessels covered by the Washington treaty and subsequently with the others. The suggestions that follow are naturally subject to the stipulation of a general agreement.

(A) Vessels covered by the Washington treaty:

(1) *Capital ships*.—The Washington treaty fixes the following ratios and total tonnages for capital ships: America, ratio 5, tonnage 525,000; the British Empire, ratio 5, tonnage 525,000; Japan, ratio 3, tonnage 315,000; France, ratio 1.67, tonnage 175,000; Italy, ratio 1.67, tonnage 175,000.

Under the treaty Italy was entitled to retain the 10 capital ships she had in 1922. She has voluntarily scrapped six without replacing them, remaining with four capital ships. Moreover, in October, 1928, she suggested the signatory powers should postpone until 1936 building the capital ships which each of them is entitled to lay down during the period 1931–1936. The Italian Government, without prejudice to the agreements reached in Washington, maintain this suggestion, by which Italy would not lay down, for an agreed period, 105,000 out of the 175,000 tons assigned her, subject, of course, to the condition that the other signatory powers accept the obligations resulting to each of them from the above suggestion. Moreover, should the other powers concur Italy is prepared to examine favorably the abolition of capital ships.

(2) *Aircraft carriers*.—America, ratio 5, tonnage 135,000; British Empire, ratio 5, tonnage 135,000; Japan ratio 3, tonnage 81,000; France, ratio 2.22, tonnage 60,000; Italy, ratio 2.2 tonnage 60,000. Under the Washington treaty, Italy is entitled here and now to build up to the above figure of 60,000 tons. The Italian delegation is, however, prepared to undertake not to exceed the aircraft-carrier tonnage actually possessed at any given time by the strongest continental power of Europe.

(B) Vessels not covered by the Washington treaty:

The Italian delegation are prepared to undertake not to exceed the global tonnage of war vessels not covered by the Washington

treaty actually possessed at any given time by the strongest European continental power. They are likewise prepared to agree not to exceed the total tonnage of submarines actually possessed at any given time by such a power.

The above undertakings exclude the possibility that Italy should at any time exceed the armaments of the strongest European continental power. Moreover, they afford the best guaranty that Italy, far from standing in the way of the further reduction of armament, will, on the contrary, be instrumental thereto.

The Italian delegation do not exclude the possibility that they might consent to more extensive methods of limitation should the conference agree to an actual reduction based on agreed ratios of strength. In the meantime they maintain the suggestion made at Geneva in April, 1927, to the effect that Italy is prepared to notify, six months at least before laying down a keel, the principal dimensions of each hull and characteristics of the main armament of each ship to be built, provided the other powers are willing to give a like undertaking.

With special reference to submarines, the Italian delegation recall their statement to the effect that Italy has no objection to their abolition if a substantial reduction of naval armaments be secured covering the abolition of capital ships. The Italian delegation trust that in any case submarine tonnage will be reduced.

The following table shows the present naval strength of the three European powers in vessels not covered by the Washington treaty. This table gives the figures of all vessels laid down or completed, not exceeding the agreed age limits of 20 years for cruisers, 16 for destroyers, and 13 for submarines:

CRUISERS CARRYING 8-INCH GUNS

	British Empire		France		Italy	
	Number	Tons	Number	Tons	Number	Tons
Completed.....	11	110,000	3	30,000	2	20,000
Building.....	4	36,800	3	30,000	4	40,000
Total.....	15	146,800	6	60,000	6	60,000

OTHER CRUISERS CARRYING A GUN ABOVE 6 INCHES

Completed.....	4	39,426	1	¹ 13,830	2	¹ 20,940
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CRUISERS CARRYING A GUN OF 6 INCHES AND BELOW

Completed.....	39	177,685	7	¹ 41,870	7	¹ 28,900
Building.....					6	29,604
Total.....	39	177,685	7	41,870	13	58,504

LEADERS AND DESTROYERS

Completed.....	150	157,585	60	70,738	78	73,814
Building.....	20	26,786	21	44,867	11	14,588
Total.....	170	184,371	81	115,605	89	88,402

¹ For vessels completed prior to 1922 normal displacement is given instead of standard displacement. Displacements in all cases in English tons.

GRAND TOTAL OF CRUISERS AND DESTROYERS

Completed and building.....	228	548,282	95	231,305	110	227,846
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SUBMARINES

Completed.....	53	45,534	44	31,984	43	27,263
Building.....	10	14,750	47	49,783	14	9,825
Total.....	63	60,284	91	81,767	57	37,088

SECRETARY STIMSON'S PROVISIONAL FORECAST RELATIVE TO NAVAL REDUCTION

On March 5, 1930, Secretary Stimson issued the following public statement relative to the amount of naval reduction which seemed to be within reach at that stage of the London Conference proceedings:

There seems to be an impression that the work of the American delegation at this conference is likely to result in an increase instead of a reduction in the tonnage of the navies of the world.

The surest way to answer that is to give such results as seem to be within reach up to date. The plan which in its essentials appears to be acceptable to America and Great Britain provides for a net reduction in the tonnage of the American fleet, in capital ships, cruisers, destroyers, and submarines, built, building, or appropriated for, of over 200,000 tons and even larger reduction on the part of the British fleet.

If vessels authorized but not commenced were included in existing fleets, the amount of reduction would be much greater.

Of course, these reductions are contingent upon some reduction being made in the fleets of other powers.



CURRENT ARTICLES OF PROFESSIONAL INTEREST

Porto Rican Criticism of United States Control. By Leopoldo Cuban. (Current History, March, 1930.)

China's Desperate Gesture. By Rodney Gilbert. (Asia, March, 1930.)

The Dispute Between Russia and China. By Ching-Chun Wang. (Nineteenth Century, February, 1930.)

The Future of Sea Power: A Speculation. By Lieut. Melvin T. Talbot (SC). United States Navy. (Nineteenth Century, February, 1930.)

Submarine Safety Advances. (Scientific American, March, 1930.)

Load Lines Here and Abroad. By Rear Admiral T. G. Tawresey (CC), United States Navy, retired. (Merchant Marine Bulletin, February, 1930.)

Ship Canals in World Trade. By George H. Toole. (Merchant Marine Bulletin, February, 1930.)

Freedom of the Seas. By Viscount Grey of Fallodon. (Foreign Affairs, April, 1930.)



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FOR CONVENIENCE IN ROUTING

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CORRECTION

Cancel the entry of "Nickel" in the table on page 21 of the March, 1930, Office of Naval Intelligence Bulletin.

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v



Ordered
U. S. W.

DESTROYERS

UNITED STATES

As contrasted with destroyer-building programs executed by other naval powers, the United States Navy has built no destroyers of post-war design. There remain to be built 12 destroyers authorized by the 1916 building program, but for which no appropriations are available. No destroyer leaders have been built for the United States Navy, and none have been appropriated for.

In this connection, it is of special interest to observe that American shipbuilding firms have engaged in no destroyer construction of post-war design for any government, foreign contracts having been awarded mainly to shipbuilders in England, France, and Italy.

From present available information the destroyer leaders and destroyers of post-war design built, building, and appropriated for by the various navies are as shown in the following tabulation:

Country	Destroyers and destroyer leaders of postwar design built or building	Country	Destroyers and destroyer leaders of postwar design built or building
United States.....	None.	Spain.....	6
British Empire.....	22	The Netherlands.....	8
Japan.....	52	Poland.....	2
France.....	44	Sweden.....	4
Italy.....	35	Rumania.....	2
Argentina.....	5	Turkey.....	4
Chile.....	6	Yugoslavia.....	1
Germany, 800-ton.....	12	Greece.....	2



GREAT BRITAIN

Destroyer construction in England has continued at a fairly consistent rate since the close of the World War. Exclusive of those built under the war emergency program, Great Britain has the following destroyer leaders and destroyers of postwar design built or building:

DESTROYERS

Name	Laid down	Date of completion	Standard displacement (tons)	Designed speed (knots)	Armament	
					Main battery	Torpedo tubes
DESTROYER LEADERS						
Codrington.....	1928	-----	1,520	35	5-4.7-inch...	8, 21-inch in quadruple mounts. Do.
Keith.....	1929	-----	1,330	35	3-4.7-inch...	
DESTROYERS						
Amazon.....	1925	1927	1,352	37	4-4.7-inch...	6, 21-inch in triple mounts. Do.
Ambuscade.....	1925	1927	1,173	37	-----do-----	
Acasta.....	1928	-----	1,330	35	-----do-----	8, 21-inch in quadruple mounts.
Achates.....						
Active.....						
Antelope.....						
Ardent.....						
Arrow.....						
Anthony.....						
Acheron.....						
Basilisk.....						
Beagle.....						
Blanche.....	1929	-----	1,330	35	-----do-----	Do.
Boadicea.....						
Boreas.....						
Brazen.....						
Brilliant.....						
Bulldog.....	1929	-----	1,328	35	-----do-----	Do.
Skeena ¹						
Saquenay ¹						

¹ Building for Canada.

In addition to the above, one destroyer leader (1,390 tons) and eight destroyers of postwar design have been appropriated for and are scheduled to be laid down in 1930.

As indicated in the above table, *Amazon* and *Ambuscade* were the first two destroyers of postwar design completed by Great Britain.

The *Amazon* was built by Thornycroft and the *Ambuscade* by Yarrow. It is understood that these firms were given more or less of a free hand in the design of these boats, with the idea that the Admiralty could incorporate the best features of each in the boats which were to follow. No other destroyers were laid down until these were completed. Some of the characteristics of these boats are given below:

Characteristics	Amazon	Ambuscade
Standard displacement.....	1,352 tons.....	1,173 tons.
Oil fuel.....	433 tons.....	385 tons.
Speed.....	37 knots.....	37 knots.
Designed shaft horsepower.....	39,500.....	33,000.
Length.....	311¾ feet.....	307 feet.
Breadth.....	31½ feet.....	31 feet.
Mean draft.....	9½ feet.....	8¾ feet.

In the *Ambuscade* every effort to save weight has been made by use of aluminum in battle ports, ventilating ducts, etc. The same effort to save weight has not been made on the *Amazon*. The *Ambuscade* has three Yarrow boilers in two boiler rooms, one in the

forward and two in the after boiler room. One of these boilers is smaller than the other two and is used for cruising up to 12.5 knots. Boiler pressure is stated to be 300 pounds. Two turbines are installed in one large machinery compartment.

The *Amazon* has two boilers (the cruising boiler on the *Ambuscade* being in the nature of an experiment). Both of these boats are reported to be excellent sea boats. The *Amazon* is said to be the most economical destroyer in the British Navy. The annual report of John Thornycroft & Co. (Ltd.), states that the trials of the *Amazon* were far more severe than any previously imposed and that they were exceeded by an ample margin. (For additional details of *Ambuscade* see Office of Naval Intelligence BULLETIN for August, 1928.)

BRITISH DESTROYER LEADERS

The distinct purpose of the destroyer leader is to act as the leader of a division or squadron of destroyers and to carry the division or squadron commander and his staff, with all the necessary facilities for signals, radio, fire, and torpedo control, etc. The development of this type of vessel has been a gradual evolution. The pioneer in this field was the British Navy.

Prior to the World War the British destroyer flotillas were led by light cruisers of the Boadicea class (3,300 tons, 25 knots), but were soon discarded owing to their lack of speed. The 33-knot destroyers of the Tribal class were next tried, but were discarded owing to their lack of quarters for the flotilla commander and his staff. Small light cruisers were again adopted as leaders.

Thus at the outbreak of hostilities three destroyer flotillas were led by light cruisers of the Fearless class (3,440 tons, 25 knots, and ten 4-inch guns), a fourth flotilla being led by the large destroyer *Swift* of experimental design launched in 1907. The *Swift* was thus the first destroyer leader and was designed after experience in maneuvers had demonstrated the inability of the light cruisers of the time to lead the destroyer because of lack of speed.

The H. M. S. *Swift*, appropriated for as a "torpedo boat destroyer, special type," was laid down October 30, 1906, was completed in February, 1910, and had the following characteristics: 2,207 tons displacement; speed, 35 knots (4 shafts, Parsons turbines, 30,000 horsepower); one 6-inch gun, two 4-inch guns, 2 torpedo tubes; length, 352 feet 11 inches; beam, 34 feet 2 inches; cruising radius, 2,335 miles at 15 knots.

It will be noted that although the *Swift* was laid down experimentally in 1906, there were no other destroyer leaders built or laid down until 1914, when the First Lord of the Admiralty, in introducing the Navy estimates, announced that two large destroyers would

be built to serve as squadron leaders. In February, 1914, these two leaders were laid down as the *Marksman* and *Lightfoot*.

At the outbreak of the World War there were four other large destroyers under construction at Cowes, England; these four boats were being built for the Chilean Government, two of the same type, the *Almirante Lynch* and *Almirante Condell*, having been delivered to that country prior to the declaration of war. Although these Chilean destroyers were not designed as destroyer leaders, they were taken over by the British Government and used as such, after being renamed *Broke*, *Botha*, *Faulknor*, and *Tipperary*, the two last named being present at Jutland, acting as destroyer leaders. The Navy List displacement of these four vessels was 1,700 to 1,740 tons; they carried six 4-inch guns: the *Botha* and *Tipperary* with designed speed of 31 knots, while *Faulknor* and *Broke* were designed for 32 knots. After being placed in commission all four of these vessels had alterations made to their bridges in providing for a captain's sea cabin and signal house. The *Lightfoot* and *Marksman*, previously mentioned as laid down in 1914, were slightly smaller than the ex-Chilean destroyers, but were faster, being designed for 34 knots.

The next type of leader laid down by Great Britain was in 1916 to 1918, the Thornycroft type as represented by the *Shakespeare*, of following characteristics: Standard displacement, 1,480 tons; speed, 36 knots; five 4.7-inch guns (center line); two sets of triple 21-inch torpedo tubes. Two of this type, the *Broke* and *Keppel*, laid down in 1918, were not completed until 1925.

In 1916 the British commander in chief expressed the desire for a flotilla leader of greater size in order to better meet the severe weather conditions of the North Sea. The Admiralty type was designed to meet these requirements, there being seven of this class (*Bruce*, *Campbell*, *Douglas*, *Mackay*, *Malcolm*, *Montrose*, and *Stuart*) at present on the British Navy List. The characteristics of this type are as follows: Standard displacement, 1,530 tons; length, 332 feet 6 inches; beam, 31 feet 9 inches: twin-screw geared turbines (40,000 shaft horsepower); speed, 36.5 knots at 360 revolutions per minute.

Great Britain now has two destroyer leaders under construction, one of which, the *Codrington*, laid down in 1928, has a standard displacement of 1,520 tons: speed, 35 knots: and armed with five 4.7-inch guns and eight 21-inch torpedo tubes in quadruple mounts. The other one, the *Keith*, laid down in 1929, displaces 1,330 tons—190 tons smaller than the *Codrington*. Other comparative features worthy of note are that *Keith* is armed with only three 4.7-inch guns, while *Codrington* has five, also *Keith's* engineering plant is designed for developing 34,000 horsepower as against 39,000 for *Codrington*.

It is of further interest to note that the eight destroyers (latest B class), also laid down in 1929, are of the same tonnage as *Keith*, but have four 4.7-inch guns. In other words, it appears that the leader (*Keith*) will have one 4.7-inch gun less than the other destroyers in her flotilla. It is assumed that the saving in weight and space resulting from arming the leader with one gun less than the corresponding flotilla is utilized in creating quarters and other flag facilities for the flotilla commander.



JAPAN

The destroyers laid down by Japan, since 1918 with displacement exceeding 1,000 tons are as shown in the following table:

Name	Laid down	Date of completion	Standard displacement (tons)	Designed speed (knots)	Armament	
					Main battery	Torpedo tubes
Sawakaze.....	1918	1920	1, 215	34	4, 4.7-inch...	6, 21-inch in twin mounts.
Minekaze.....	1918	1920				
Yakaze.....	1918	1920				
Hakaze.....	1918	1920				
Okikaze.....	1919	1920				
Shimakaze.....	1919	1920				
Akikaze.....	1920	1921				
Tachikaze.....	1920	1921				
Shiokaze.....	1920	1921				
Yukaze.....	1920	1921				
Nadakaze.....	1920	1921				
Hokaze.....	1920	1921				
Nokaze.....	1921	1922	1, 270	34	-----do-----	Do.
Numakaze.....	1921	1922				
Namikaze.....	1921	1922				
Kamikaze.....	1921	1922				
Harukaze.....	1922	1923				
Asakaze.....	1922	1923				
Hatakaze.....	1923	1924				
Matsukaze.....	1922	1924				
Asanagi.....	1923	1925				
Yunagi.....	1923	1925				
Hayate.....	1922	1925				
Oite.....	1923	1925				
Kisaragi.....	1924	1925	1, 315	34	-----do-----	6, 21-inch in triple mounts.
Satsuki.....	1923	1925				
Mutsuki.....	1924	1926				
Fumitsuki.....	1924	1926				
Yayoi.....	1924	1926				
Udzuki.....	1924	1926				
Kikuzuki.....	1925	1926				
Nagatsuki.....	1925	1927				
Mikadzuki.....	1925	1927				
Minadzuki.....	1925	1927				
Yudzuki.....	1925	1927				
Mochidzuki.....	1926	1927				
Shirayuki.....	1926	1928	1, 700	34	6, 4.7-inch...	9, 21-inch in triple mounts.
Shirakumo.....	1926	1928				
Usugumo.....	1926	1928				
Shinonome.....	1926	1928				
Fubiki.....	1926	1928				
Isonami.....	1926	1928				
Hatsuyuki.....						
Murakumo.....						
Miyuki.....	1927	1929				
Uranami.....						
Ayanami.....						
Amagiri.....	1928					
Shikanami.....	1928					
Asagiri.....	1928					
Yugiri.....	1928					
Sagiri.....	1928					

In addition to those shown in the above table, eight destroyers of 1,700 tons displacement and speed of 34 knots have been appropriated for.

Little information is available on the subject of destroyer leaders in the Japanese Navy. However, during the Geneva Tripower Naval Conference of 1927 one of the Japanese delegates, Capt. Teijiro Toyoda, at the fourth and fifth meetings of the technical committee, when the subject of destroyers and destroyer leaders was under discussion, stated that the Japanese delegation "had no view to express as regards leaders, in which they had no experience." He also stated that "it sounded reasonable to them not to have a very great difference of tonnage between the flotilla leader and the destroyer."

Jane's Fighting Ships (1929) does not list any destroyer leaders for the Japanese Navy.



FRANCE

Since 1922 France has built, laid down, or appropriated for the following destroyer leaders and destroyers:

Name	Laid down	Date of completion	Standard displacement (tons)	Designed speed (knots)	Armament	
					Main battery	Torpedo tubes
DESTROYER LEADERS						
Valmy	1927	1929	2,436	36	5, 5.5-inch	6, 21.7-inch in triple mounts. Do.
Guepard	1927	1929	2,436	36	.....do.....	
Chacal	1923	1926	2,126	35.5	5, 5.1-inch	Do.
Jaguar	1923	1926				
Tigre	1923	1926				
Lynx	1923	1927				
Leopard	1923	1927				
Panthere	1923	1927				
Bison	1925	.....	2,436	35.5	5, 5.5-inch	Do.
Lion	1926	.....	2,436	35.5	.....do.....	Do.
Verdun	1927	1930	2,436	36	.....do.....	Do.
Vauban	1927	.....	2,436	36	.....do.....	Do.
Aigle	1928	.....	2,440	37	.....do.....	Do.
Vautour	1928	.....	2,440	37	.....do.....	Do.
Albatros	1928	.....	2,440	37	.....do.....	Do.
Gerfaut	1928	.....	2,440	37	.....do.....	Do.
Milan	1928	.....	2,440	37	.....do.....	Do.
Epervier	1928	.....	2,440	37	.....do.....	Do.
DESTROYERS						
Bourrasque	1923	1926	1,319	34.1	4, 5.1-inch	Do.
Simoun	1923	1926	1,319	33.9	.....do.....	Do.
Orage	1923	1926	1,319	33.78	.....do.....	Do.
Tempete	1923	1926	1,319	33.9	.....do.....	Do.
Ouragan	1923	1927	1,319	33	.....do.....	Do.
Sirocco	1923	1927				
Tramontane	1923	1927				
Trombe	1923	1927				
Typhon	1923	1928				
Cyclone	1923	1928				
Mistral	1923	1928	.....	.....	.....	.....
Tornado	1923	1928				

Name	Laid down	Date of completion	Standard displacement (tons)	Designed speed (knots)	Armament	
					Main battery	Torpedo tubes
DESTROYERS—CON.						
La Palme.....	1925	1928	1,377	34	4, 5, 1-inch..	6, 21.7-inch in triple mounts.
La Railleuse.....	1925	1928				
Le Fortune.....	1925	1928				
Le Mars.....	1925	1928				
Brestois.....	1926	1928				
Boulonnais.....	1926	1928	1,377	34	do.....	Do.
L'Adroit.....	1925	1929				
L'Alcyon.....	1925	1929				
Bordelais.....	1926	.....			
Basque.....	1926	.....			
Frondeur.....	1927	.....			
Fougeux.....	1927	.....			
Foudroyant.....	1927	.....			
Forban.....	1927	.....			

In addition to the above, France has appropriated for six destroyer leaders with estimated standard displacement of 2,362 tons each and six with estimated standard displacement of 2,558 tons each.

As indicated in the foregoing table, French postwar destroyer construction has been confined mainly to two types of boats—destroyer leaders running from 2,126 to 2,436 tons standard displacement, designated as “contre-torpilleurs,” and destroyers running from 1,319 to 1,377 tons standard displacement, designated as “torpilleurs.”

The following statement made in the French Chamber of Deputies during the debate on the 1930 naval building program is of interest:

We have built 26 destroyers of 1,500 tons displacement. The first 12 were not successful. Their hulls are too fragile. They have frequent machinery breakdown. They are not remarkable ships. The 14 following, however, are entirely successful.

It would appear that the 12 destroyers referred to as “not successful” are *Bourrasque*, *Simoun*, *Orage*, *Tempete*, *Ouragan*, *Sirocco*, *Tramontane*, *Trombe*, *Typhon*, *Cyclone*, *Mistral*, and *Tornado*. The other 14 boats mentioned as “successful” evidently refer to those of 1,377 standard tons displacement shown in the above table.

FRENCH DESTROYER LEADERS

French construction of destroyer leaders did not begin until 1923, when the first one of the six Jaguar class was laid down. Although early in 1914 France had planned certain “Convoyeurs d'escadrille,” they were never laid down owing to the outbreak of hostilities. Large displacement, high speed, and heavy gun power are the present outstanding characteristics of French destroyer leader design.

The Jaguars were followed in 1925 by the three larger vessels of the Guepard class (*Guepard*, *Bison*, and *Lion*), standard displacement 2,436 tons, speed 35 knots, with the same main armament as the Jaguars. In 1927 were laid down three more of this gen-

eral type, the *Verdun*, *Vauban*, and *Valmy*, but with slightly increased length and different arrangement of funnels as compared with their predecessors.

In 1928 were laid down the six 37-knotters of the *Aigle* class (*Aigle*, *Vautour*, *Albatros*, *Gerfaut*, *Milan*, *Epervier*), with slightly greater displacement (2,440 tons) and carrying heavier guns (five 5.5-inch) than the *Jaguars* and *Guepards*.

At present the French destroyer leaders are operated together tactically as large destroyers and not as leaders.

Speaking of the large types of destroyer leaders mentioned above, the chairman of the naval affairs committee in reporting the 1930 budget said:

The Navy Department should profit from the delay of four or five months to study the proposed 1930 building program, a program identical with that of 1929. It includes 6 destroyer leaders of 2,500 to 3,000 tons, of which we already have 24 built or building. Many officers feel that this is a hybrid type, neither cruiser, destroyer, nor destroyer leader. In any case the French is the only navy to construct them. The mere fact that they hold world-speed records, a fact of no particular military importance, does not justify them. He also stressed the necessity of increasing the percentage of the total weight allowed to hull construction and to other qualities that will better the endurance of the ships.



ITALY

Since 1921 Italy has built, laid down, or appropriated for the following destroyer leaders and destroyers of over 1,000 tons standard displacement:

Name	Laid down	Date of completion	Standard displacement (tons)	Designed speed (knots)	Armament	
					Main battery	Torpedo tubes
DESTROYER LEADERS						
Pantera.....	1921	1924	1, 525	34	8, 4.7-inch ...	6, 18-inch in triple mounts.
Tigre.....	1922	1924				
Leone.....	1921	1924				
Luca Tarigo.....	1929	1929				
Ugolino Vivaldi.....	1927	1929	1, 628	38	6, 4.7-inch ...	6, 21-inch in triple mounts.
Giov. da Verazzano.....	1927					
Niccolo Zeno.....	1927	1929				
Antoniotto Usodimare.....	1927	1929				
Leone Pancaldo.....	1927	1929				
Antonio da Noli.....	1927	1929				
Emmanuele Pesagno.....	1927	1929				
Lanzerotto Malcello.....	1927					
Alvise Cadamosto.....	1927		1, 628	38	6, 4.7-inch ...	6, 21-inch in triple mounts.
Nicoloso da Recco.....	1927	1929				
Antonio Pigafetta.....	1927					

Name	Laid down	Date of completion	Standard displacement (tons)	Designed speed (knots)	Armament	
					Main battery	Torpedo tubes
DESTROYERS						
Daniel Manin.....	1924	1927	1, 058	37. 4	4, 4.7-inch...	6, 21-inch in triple mounts.
Nazario Sauro.....	1924	1926				
Francesco Nullo.....	1924	1927				
Cesare Battisti.....	1924	1927	1, 092	36	...do.....	Do.
Turbine.....	1925	1927				
Aquilone.....	1925	1927				
Euro.....	1925	1927	1, 072	36	...do.....	Do.
Nembo.....	1925	1927				
Borca.....	1925	1927				
Zeffiro.....	1925	1928	1, 072	36	...do.....	Do.
Ostro.....	1925	1928				
Espero.....	1925	1928				
Dardo.....	1929		1, 205	38	...do.....	Do.
Strale.....	1929					
Freccia.....	1929					
Saetta.....	1929					
Folgore.....	1929					
Lampo.....	1929					
Baleno.....	1929					
Fulmine.....	1929					

The *Emmanuele Pessagno*, building at the Cantieri Navali Riuniti, Ancona, was visited on September 6, 1929.

The *Luca Tarigo* and *Malocello*, building at the Societa Giovanni Ansaldo, Genoa, and the *Vivaldi* and *Usodimare*, building at the Odero Terni at Sestri Ponente, were visited in March, 1929. Some of the outstanding characteristics of this type vessel are as follows:

General arrangement.—The forecastle deck breaks just forward of No. 1 smokestack. The bridge structure in plan is shaped somewhat similar to the half of an ellipse, the rounded portion being forward and the side elements vertical. On the level of the fore-castle deck is a reading and recreation room; level next above the central station, wireless rooms and emergency cabin; level next above, the chart house and steering station; the highest level is protected by side rail and spray shield and contains the fire-control station, range finder, and compass. The searchlight is located on a platform on mast. There is a tripod steel mast forward and single steel mast aft.

Main battery consists of six 4.7 inch/50 guns. Two guns are located forward of bridge structure, two amidships between smokestacks on platform, and two aft on platform.

Torpedo tubes are located amidships, one on either side. It was stated that the only torpedoes carried are the six carried in the tubes.

Mine tracks.—On board *Emmanuele Pessagno* it was noted that two sets of mine tracks are installed for rolling mines or depth charges over the stern. The tracks will hold 20 mines on each side, total 40.

Engine and boiler rooms.—The four boilers (Yarrow type) are located in four watertight compartments, the arrangement of boilers and machinery from forward being No. 1 boiler room, No. 2 boiler room, No. 1 engine room, No. 3 boiler room, No. 4 boiler room, No. 2 engine room.

The main engines consist of two sets of Parsons geared turbines. It was stated that one of this type of vessels now undergoing trials had attained the high speed of 42 knots and had made 40.6 knots for four hours at designed displacement. Another informant said that all the boats could make between 39 and 40 knots. One of the prospective chief engineers stated that it was gratifying to him to know that he could make 30 knots in formation and have plenty of reserve—"that is all we want." It was also stated that the main engines developed about 60,000 horsepower on trials.

Steaming radius.—No accurate data on steaming radius are available. One statement was that the vessels can steam $3\frac{1}{2}$ days at 18 knots, or 1,512 miles. Tests will be made to determine steaming radius.

Auxiliaries.—Two electric capstans are installed.

A steam steering engine is installed in after engine room, operated by telemotor from the steering station. Forward of the mainmast is the after steering station and torpedo-control platform.

An ice machine of the Audifren type is installed aft of quarters on the second deck—capacity 50 kilograms of ice in eight hours; also used for cooling refrigerator.

Galleys are located on the main deck forward, starboard side—one galley for crew and one for officers. The oil ranges have burners that are run with compressed air. In the corresponding space port side are located the water-closets and washrooms for the crew.

Accommodations.—The crew is berthed forward in hammocks. On board *Emmanuele Pessagno* it was noted that in the forward crew's compartment, directly under the forecastle, a sheathing of a material called "Celotex" was being installed, leaving an air space of 3 inches between the metal deck and the sheathing. This is done to reduce the temperature in the compartment, which is said to be unbearable in hot weather without such sheathing. The compartments are heated with hot-water radiators from small oil-fired boilers. The crew's effects are carried in metal lockers located outboard next to shell plating.

The officers' quarters are located aft on the second deck and consist of a central passage with staterooms on each side, leading aft to wardroom which extends the full width of the vessel. The forward space on the starboard side is utilized for stateroom and bath of the commanding officer; opposite to this are the water-closets and bathrooms of the officers. The two after rooms are double rooms.

Abaft the wardroom are the pantry and ice-machine room. All furniture is made of wood and the sheathing in wardroom is faced with wood veneer.

Shell plating.—All shell plating under 7 millimeters in thickness below the water line was said to be galvanized. No welding is used except for attachment of minor fittings. No aluminum is used so far as could be learned.

Main deck.—The main deck was galvanized and antislip properties provided by riveting small bars about 6 by 1 by $\frac{1}{4}$ inch with corrugated face to deck, spaced about one for each 2 square feet, the length of the bar being diagonal to the fore-and-aft line. In the vicinity of the guns the spacing and arrangement was fan shaped.

Complement.—Seven officers and about 180 men.

Use of type in fleet.—The present plan is to form the 12 vessels of this type into 4 groups of 3 ships each and assign them to the first squadron.

ITALIAN FIRE AND TORPEDO CONTROL SYSTEMS

Fire-control systems.—It is understood that the Italian Navy has decided to install the Galileo fire-control system on all new construction as a result of having tried the Barr and Stroud system on the cruiser *Trento* and the Siemens system on the destroyer *Ostro*.

The destroyer leaders *Leone*, *Pantera*, and *Tigre* have a fire-control system for their eight 4.7-inch/45 guns (arranged in pairs) designed by the Navy and Galileo and manufactured by Ansaldo. It is understood that this installation comprises a follow-the-pointer system operated from a director.

The destroyer *Borea* is equipped with the first complete Galileo installation, which is a self-synchronous system. The plotting room is in a compartment on the upper deck immediately under the bridge, the instruments being housed in a casing fore and aft on the midship line. The motor generator is abaft the instruments. The destroyer installation, controlling the four 4.7-inch guns (in pairs) as one group, is said to be as complete a system as that installed on the cruiser *Trento* for the light 8-inch guns, with a difference in size only. The installation on the *Borea* is used with an Anschütz gyrocompass.

Torpedo control.—The destroyer *Borea* has the torpedo control aft, with its own gyro repeater and range finder. This is a Galileo installation, follow-the-pointed type, and the torpedo tubes are trained electrically, each triple tube having its own motor generator near it on deck. There is no distant gyro-setting device, torpedo gyro orders being transmitted by telephone.

ARGENTINA

Five destroyers of post-war design have been built in foreign ship-yards for the Argentine Navy, two in Spain and three in England, as follows:

Destroyers	Laid down	Completed	Standard displacement (tons)	Speed (knots)	Main battery	Torpedo tubes
<i>Cervantes</i> (ex-Spanish <i>Churrua</i>).	1923	1925	¹ 1,500	36	5, 4.7 inch...	6, 21-inch, in triple mounts.
<i>Juan de Garay</i> (ex-Spanish <i>Alcala-Galiano</i>).	1923	1925	¹ 1,500	36	-----do-----	Do.
<i>Mendoza</i>	1927	1929	1,520	36	-----do-----	Do.
<i>Tucuman</i>	1927	1929	1,520	36	-----do-----	Do.
<i>La Rioja</i>	1927	1929	1,520	36	-----do-----	Do.

¹ Approximately.

Both *Cervantes* and *Juan de Garay* were built in Spain and are said to be very similar in design to the British war-time Scott class, while *Mendoza*, *Tucuman*, and *La Rioja* were built at Cowes, England, by Messrs. J. Samuel White and Co. (Ltd.).

The *Mendoza* and *Tucuman* were officially handed over to the Argentine Government and commissioned at Cowes, England, on September 3, 1929, after which they proceeded to the Dutch naval base at Den Holder, Holland, for installation of their fire-control apparatus, consisting of stereoscopic range finders, master torpedo director, and searchlights. Of the above installations the optical instruments were manufactured in Holland by the Netherlands Instrument Co. (Zeiss patents), and the control instruments by the Hazemeyer's Signal Apparatus Co. (Siemens and Halski patents).

The *Mendoza* and *Tucuman* then proceeded across the Atlantic to Argentina, arriving at Puerto Militar on November 5, 1929. The *La Rioja* sailed from Cowes on October 28, 1929, for Lisbon en route to Argentina. It is understood that all three of these destroyers exceeded their contract speed of 36 knots, having been reported as attaining a speed of over 39 knots on trials over the measured mile course in England. It is further understood that these three destroyers are of generally similar characteristics as the British destroyer *Codrington* now building in England at Newcastle-on-Tyne.



CHILE

The following six destroyers, of post-war design, built in Southampton, England, by the Messrs. John I. Thornycroft and Co. (Ltd.) for the Chilean Navy, have now been delivered to Chile. It is understood that all of these vessels exceeded their contract speed on trials:

Destroyers	Laid down	Completed	Standard displacement (tons)	Speed (knots)	Main battery	Torpedo tubes
Serrano.....	1927	1928	1,136	35	3, 4.7 inch....	6, 21-inch in triple mounts.
Orella.....	1927	1928	1,136	35	-----do-----	Do.
Riquelme.....	1927	1929	1,136	35	-----do-----	Do.
Hyatt.....	1927	1929	1,136	35	-----do-----	Do.
Aldea.....	1928	1929	1,136	35	-----do-----	Do.
Videla.....	1928	1929	1,136	35	-----do-----	Do.



GERMANY

The treaty of Versailles authorized the retention by Germany of 12 destroyers, and further permitted the replacement of these boats after 15 years from date of launching, the treaty stipulating that no destroyers constructed as replacements shall exceed a displacement of 800 metric tons each. The following 12 destroyers thus represent the replacement program begun in 1926, as outlined above, all of which were built at Wilhelmshaven:

Destroyers	Laid down	Completed	Displacement (tons)	Speed (knots)	Main battery	Torpedo tubes
Mowe.....	1924-25 program..	1926	800	33	3, 4.1 inch....	6, 19.7-inch in triple mounts.
Albatross.....	-----do-----	1927	800	33	-----do-----	Do.
Greif.....	-----do-----	1927	800	33	-----do-----	Do.
Seeadler.....	-----do-----	1927	800	33	-----do-----	Do.
Falke.....	-----do-----	1927	800	33	-----do-----	Do.
Kondor.....	-----do-----	1927	800	33	-----do-----	Do.
Wolf.....	1927.....	1929	800	34	-----do-----	Do.
Iltis.....	1927.....	1929	800	34	-----do-----	Do.
Jaguar.....	1928.....	1929	800	34	-----do-----	Do.
Leopard.....	1928.....	1929	800	34	-----do-----	Do.
Luchs.....	1928.....	1929	800	34	-----do-----	Do.
Tiger.....	1928.....	1929	800	34	-----do-----	Do.

Articles 181 and 190 of the treaty of Versailles specifically limit the German naval forces.

Article 181 reads as follows:

After the expiration of a period of two months from the coming into force of the present treaty, the German naval forces in commission must not exceed 6 battleships of the Deutschland or Lothringen type, 6 light cruisers, 12 destroyers, 12 torpedo boats, or an equal number of ships constructed to replace them, as provided in article 190.

No submarines are to be included.

All other warships, except where there is provision to the contrary in the present treaty, must be placed in reserve or devoted to commercial purposes.

Of special interest in connection with the authorized strength of the German Navy is the decision, CA(II), of the conference of ambassadors of March 16, 1920, by which Germany is permitted to retain, out of commission in reserve, the following vessels for the

Baltic and North Sea stations in addition to those authorized in the above article 181 of the Versailles treaty, but no ammunition or stores are allowed for these additional vessels: Two old battleships (*Lothringen* and *Pruessen*), two cruisers (*Nymphi* and *Niobe*), four destroyers, four torpedo boats.

Article 190 of the Versailles treaty reads as follows:

Germany is forbidden to construct or acquire any warships other than those intended to replace the units in commission, provided for in article 181 of the present treaty.

The warships intended for replacement purposes as above shall not exceed the following displacement:

	Tons
Armor ships.....	10,000
Light cruisers.....	6,000
Destroyers.....	800
Torpedo boats.....	200

Except when a ship has been lost, units of the different classes shall only be replaced at the end of a period of 20 years in the case of battleships and cruisers, and 15 years in the case of destroyers and torpedo boats counting from the launching of the ship.



SPAIN

The following Spanish destroyers are of designs by La Sociedad Espanola de Construccion Naval, in which firm British experience is available at their shipbuilding yards at Cartagena:

Destroyers	Laid down	Completed	Displacement (tons)	Speed (knots)	Main battery	Torpedo tubes
Sanchez Barcaiztegui.....	1926	1928	1,650	36	5, 4.7-inch...	6, 21-inch in triple mounts.
Almirante Ferrandiz.....	1926	1928	1,650	36	do.....	Do.
Jose Luis Diez.....	1926	1929	1,650	36	do.....	Do.
Lepanto.....	1926	-----	1,650	36	do.....	Do.
Alcala Galiano.....	-----	-----	1,650	36	do.....	Do.
Churrucia.....	-----	-----	1,600	36	do.....	Do.

The *Churrucia* and *Alcala Galiano*, listed above, are to replace destroyers of the same name sold to Argentine Navy in 1927.



THE NETHERLANDS

The following destroyers of the Royal Netherlands Navy have been designed by Messrs. Yarrow & Co. and built under their supervision in the Netherlands.

Destroyers	Laid down	Completed	Standard displacement (tons)	Speed (knots)	Main battery	Torpedo tubes
De Ruyter.....	1925	1927	1,313	34	4, 4.7-inch...	6, 20.8-inch, in triple mounts.
Evertsen.....	1925	1927	1,313	34	do.....	Do.
Kortenaar.....	1925	1928	1,313	34	do.....	Do.
Piet Hein.....	1925	1927	1,313	34	do.....	Do.
Van Galen.....	1926	1928	1,313	34	do.....	Do.
Witte de Witte.....	1926	1929	1,313	34	do.....	Do.
Bankert.....		Due	1,313	34	do.....	Do.
Van Nes.....		1930	1,313	34	do.....	Do.

In June, 1929, the *Kortenaar* crossed the Atlantic and proceeded to Curacao incident to the Venezuelan rebel raid on that island, returning to the Netherlands in September, 1929. It is understood that the *Kortenaar* will be assigned to the Dutch East Indies in the spring of 1930.

One feature of particular interest in connection with the engineering plants of the new Dutch destroyers is that of the installation of high-pressure steam equipment in the *Van Galen* and *Witte de Witte*, which vessels carry a steam pressure of 400 pounds per square inch, as against 275 pounds per square inch in the *De Ruyter* installation. Comparative steaming data taken from the two types of installations show the high pressure as being considerably more economical in fuel consumption, especially at high speeds.



POLAND

Poland has ordered two destroyers to be built in France, as follows:

Destroyers	Laid down	Completed	Standard displacement (tons)	Speed (knots)	Main battery	Torpedo tubes
Burza.....	1926	Due 1929....	1,396	33	4, 5.1-inch...	6, 20.8-inch in triple mounts.
Wicher.....	1927	do.....	1,396	33	do.....	Do.

The above destroyers are being built at the Blainville Shipyard, near Havre, and their design follows closely that of the French Simoun class.

SWEDEN

The Swedish naval program comprises four destroyers of post-war design, constructed in Swedish shipyards, as follows:

Destroyers	Laid down	Completed	Displacement (tons)	Speed (knots)	Main battery	Torpedo tubes
O. H. Nordenskjöld	1924	1927	1,050	35	3, 4.7-inch	6, 20.5-inch in triple mounts.
Nils Ehrensköld	1925	1927	1,050	35	do	Do.
Claes Horn	1928	-----	1,050	35	do	Do.
Clas Ugglia	1928	-----	1,050	35	do	Do.



RUMANIA

During 1926-27 Rumania placed an order with Italy for the construction of two destroyers of Thornycroft type at the Patterson Yard, Naples:

Destroyers	Laid down	Completed	Standard displacement (tons)	Speed (knots)	Main battery	Torpedo tubes
Regale Ferdinando	1927	-----	Unknown	33	5, 4.7-inch	6, 21-inch in triple mounts.
Regale Regina Maria.	1927	-----	do	33	do	Do.



TURKEY

It is understood that four destroyers are to be constructed for the Turkish Navy in Italian shipyards. The detailed characteristics of these vessels are not as yet available.



YUGOSLAVIA

The London Morning Post of August 10, 1929, stated that the Yarrow Co. in England have secured an order for the construction of a powerful destroyer leader for the Yugoslav Government.



GREECE

It is understood that Italian shipyards have contracts for the construction of two destroyers for Greece, to be delivered in May

and July, 1931, respectively. The Rome Messaggero of October 8, 1929, gives the following particulars concerning these two destroyers:

Length.....	303 feet.
Beam.....	30.2 feet.
Displacement.....	1,450 tons.
Speed (maximum).....	40 knots.
Speed (4-knot trial).....	39.5 knots.
Radius at 20 knots.....	4,500 miles.
Armament.....	{ 4, 4.7-inch/50 guns ; 3, 1.57-inch antiaircraft machine guns ; 6, 21-inch torpedo tubes.

Bids were received from 6 English, 3 French, and 3 Italian firms. The British bid was about \$243,000 above the Italian bid. Delivery time, first vessel in 20 months; second vessel in 22 months. The ship described is in general like the *Dardo*, the latest type of Italian destroyer.



Card
**JAPANESE JOINT ARMY AND NAVY MANEUVERS,
1929**

/ In October, 1929, the Japanese Navy held minor fall maneuvers, one phase of which included joint army and navy operations.

The maneuver called for an enemy joint army and navy force (Blue) to attempt to land on the northern coast of Japan, occupied by Red army and navy forces. At the beginning of the problem the main body of the Blue fleet was based at Chinkai, on the south-eastern coast of Korea, while the Blue army, under convoy, was based across the Korea Strait at Fukuoka, on the northwestern coast of the island of Kyushu.

The Red army headquarters were at Matsuye and the Red fleet was based at Maizuru.

The forces engaged were as follows:

BLUE

Army: 1 division (Infantry).

Navy: 3 battleships, 2 battle cruisers, 9 light cruisers, 31 destroyers, 6 submarines, 3 aircraft carriers, 2 minelayers, 3 tankers, 1 collier, 1 supply ship, and 5 transports.

RED

Army: 1 division (Infantry), Field Artillery units and 1 air regiment.

Navy: 1 battleship, 7 light cruisers, 14 destroyers, 17 submarines, two squadrons seaplanes.

Under the general plan, the maneuvers were divided into three periods, viz: First period, individual practice (October 21 to 23); second period; joint Army and Navy maneuvers (October 24 to 27); third period, general fleet action and critique (October 28 to 31).

OBJECTIVES

The principal objectives of the maneuvers were:

- /
- (1) Study of tactics as affected by aircraft and poison gas.
 - (2) Study and test of means of defense of cities and coast line against air raids in which poison gas is used.
 - (3) Test of methods of embarking, transporting, and landing in the face of opposition by an army force.

(4) Test of mobilization of aircraft and establishment of temporary air bases for army and navy.

(5) Test of joint operation of army and navy aircraft in breaking up air raids and in scouting off the coast.

(6) Study of the tactical characteristics of the new 10,000-ton cruisers of the Nachi class.

(7) Study of use of mines, mine sweeping, and offensive and defensive use of submarines.

PLAN OF OPERATIONS

Blue object.—To safely escort and insure the effective landing of a powerful army along the north coast of Japan and insure the subsequent maintenance of that army.

Blue plan.—In order to attain the above objective the following plan was evolved:

(1) Blockade of Red base Maizuru by submarines to prevent egress of Red fleet until after Blue army had effected a landing and consolidated its shore positions.

(2) Prior to landing of Blue army to destroy by aircraft the Red air bases to give Blue certain air supremacy.

(3) Air raids over Red base Maizuru as a feint to give impression that Maizuru was the object of attack.

(4) After successful landing of Blue army, the powerful Blue fleet to search out and destroy or closely blockade the Red fleet.

Red object.—To prevent the effective landing of the Blue Army.

Red plan.—(1) To carry on a campaign of attrition against the Blue convoy and fleet, especially the troop transports, by means of submarines and night destroyer attacks.

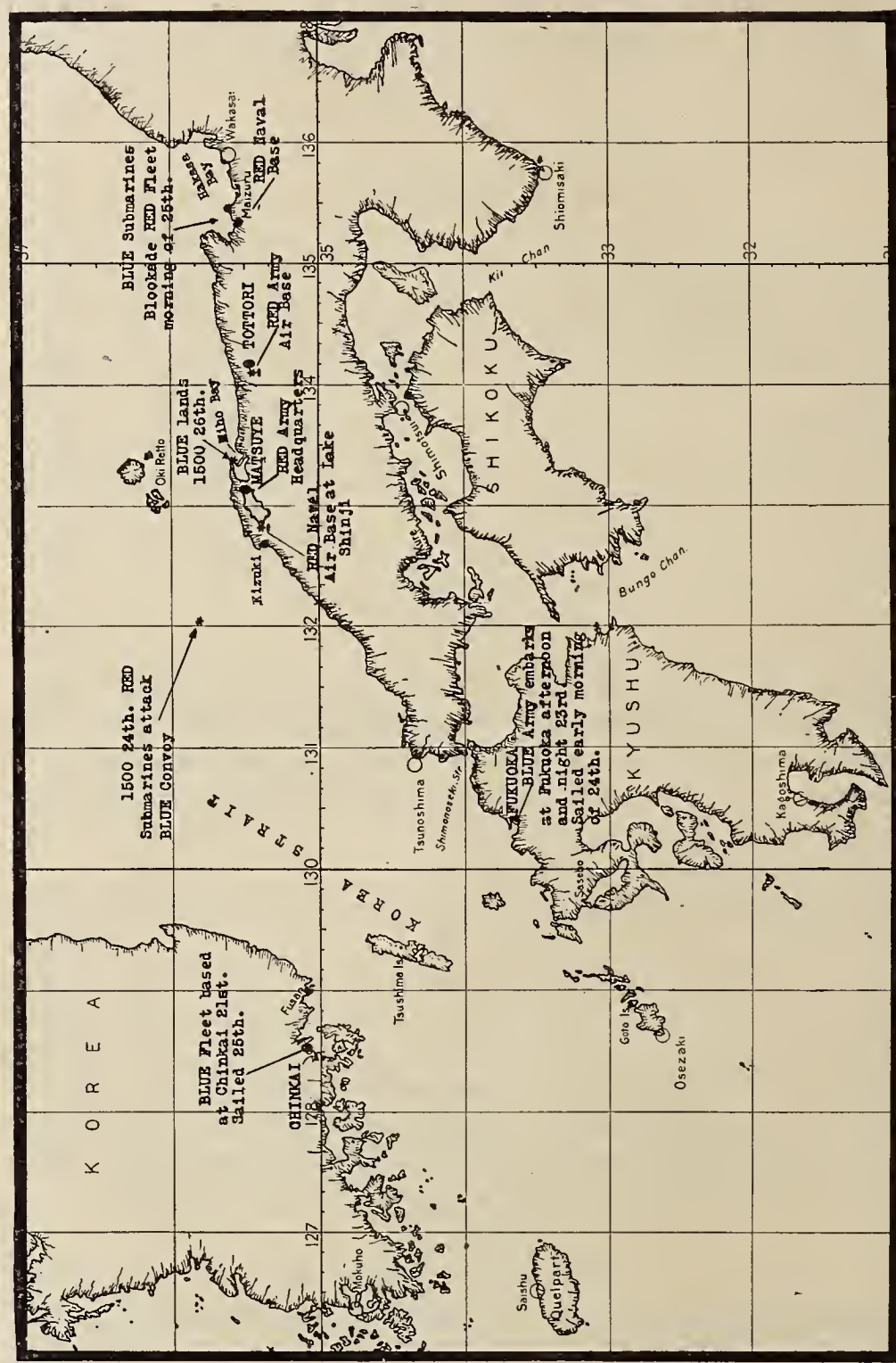
(2) To prepare defenses at all likely landing places along the coast.

(3) By careful radio tracking determine as far in advance as possible the particular point on the coast which is Blue's immediate objective.

(4) To carefully conserve all sea and air forces until Blue is engaged in the operations of landing troops, then deliver a combined air and sea attack against the Blue forces, depending on the Red army to slow up Blue's landing sufficiently for this purpose.

OPERATIONS

On October 21 the main force of the Blue fleet was assembled at the Blue base, Chinkai; the Blue escort and convoy were assembled at Fukuoka. The Red main force was assembled at Maizuru, and the Red army started concentrating.



Japanese Joint Army and Navy Maneuvers, 1929

During the first period Red was energetically engaged in establishing radiocompass stations along the coast, establishing a sea-plane base at Lake Shinji, and an army air base at Tottori, meanwhile engaging in drills designed as defense against air attacks in which gas is used and in various drills designed to protect the civil population and important centers against air raids.

The Blue forces remained quiet during the first period, except that during the afternoon and night of October 23 the Blue army embarked at Fukuoka. During the embarkation great activity was shown by the Blue escort, which evidently expected an attack, in antisubmarine and antiaircraft defense preparations; the anticipated Red attack did not materialize, however, and the embarkation of the Blue army was completed on schedule and without incident.

Early on the morning of October 24 the Blue convoy and escort put to sea, proceeding out of Hakata Bay through a swept channel cleared by the first mine-sweeper division.

On the night of October 23 the *Kinu* and the second destroyer squadron, less the twelfth division (Blue), sailed from Chinkai about the same time that Red forces, consisting of the destroyers *Katsura* and *Kayede* and the submarine tender *Karasaki*, with the entire third submarine squadron, sailed from Maizuru.

On the early morning of the 24th Blue forces, consisting of the fifth division, the first and second submarine squadrons, with the tenders *Jingei* and *Chogei* and the aircraft squadrons, sailed from Chinkai.

The remainder of the Red light forces, consisting of the seventh division and the *Tenryu*, with the third destroyer squadron, also put to sea on the morning of the 24th.

About 3 p. m. on the 24th Red submarines located and made contact with the Blue convoy to the southwest of Oki Islands, and a sharp fight ensued, in which the Red forces were finally driven off but only after one Blue troop transport had been badly damaged.

On the afternoon of the 24th Blue aircraft scouts appeared over Maizuru, Tottori, Miho Bay, and other points along the coast, but were eventually driven off by Red air forces.

Under cover of darkness during the night of the 24th the Blue aircraft carriers had approached close to the coast off Tottori, and on the early morning of the 25th, in spite of high wind and rain, the carriers were able to launch their planes in two simultaneous air attacks. The principal air attack, in which about 40 Blue planes took part, was directed against the Red army air base at Tottori and the Red navy air base at Shinji Lake. This attack was delivered with such effect that the Red army air base at Tottori was entirely destroyed, together with the Red army planes, while the Red navy

base at Shinji Lake was badly damaged. While this air attack was in progress eight Blue bombers delivered a gas and bomb attack on the Red base at Maizuru; little damage was done, however. As a result of these operations by Blue aircraft, air supremacy was definitely assured to Blue.

On the early morning of the 25th the Blue fourth division sailed from Chinkai. The Red admiral, who apparently was well informed of Blue movements by Red radiocompass stations, then attempted to get to sea with his main force, the sixth division. But he was surprised to find that Blue submarines had him bottled up in Maizuru. He then had to recall some of Red light forces to clear away this menace before he was finally able to get to sea, late on the afternoon of the 25th.

During this period the Red army was busily engaged in defense preparations against the expected Blue landing. Army headquarters were established at the city of Matsuye. While these forces were busily engaged in establishing lookout stations along the coast and preparing defense earthworks adjacent to all likely landing beaches, the approaches to those beaches were mined by small mine-laying craft from Maizuru. Barbed-wire entanglements were also erected along these beaches and field artillery emplacements prepared in positions to command the landing areas. In carrying out these operations the Red army was considerably hampered by Blue air raids and Blue aircraft observation.

About midnight of the 25th the Blue main body and convoy approached the coast off Miho Bay and commenced mine-sweeping operations with a view to effecting a landing. The Blue force was undiscovered by Red until the early morning of the 26th, when both sides opened fire. The Blue heavy ships gradually moved inshore, covering the operations of their mine sweepers and light craft. There was a strong northeast wind, accompanied by rain and a heavy sea, making aircraft operations impossible by either side. At 0800 Blue attempted to land troops, but this was found impossible due to the heavy seas. The Blue ships remained in position, however, and maintained a heavy fire on the Red shore positions until at 1140, when the maneuver was ordered suspended. At 1500, the wind having veered to the northwest, the seas in Miho Bay moderated and the maneuver was resumed. Blue was then considered to have effected a landing in force on the beach under cover of a smoke screen. It was so rough, however, that only a small force of infantry was actually landed on the beach, the remainder of the Blue army landing at the port of Sakai. At 1600 the order to end the maneuver was issued.

Upon completion of the maneuver the Red forces returned to Maizuru. The Blue force, including the first division, which sailed from Chinkai on the 26th, assembled off Oki Islands and then proceeded to Maizuru, where they arrived on the afternoon of the 27th.

CASUALTIES

October 20: Type 14 seaplane on its way to Kunda Bay from Matsuyae, due to heavy rain, lost its way and landed off Fukui Province. Due to rough sea, plane was destroyed, but crew (one officer and two men) were rescued.

October 24: Reconnaissance seaplane belonging to Furutaka made forced landing at sea. The plane, undamaged, was recovered. Crew safe.

October 25: During battle over Maizuru a type 14 reconnaissance plane crashed in Kunda Bay. Pontoons badly damaged; crew escaped injury.

October 25: Type 14 reconnaissance plane based on Lake Shinji made forced landing on a farm; plane demolished; crew uninjured.

October 25: Type 15 reconnaissance seaplane while flying over sea off Hinosaki fell in flames. Remnants of plane found; the crew (one officer and one man) missing.

COMMENT

From the above it would appear that Blue attained all its objectives, but was prevented from effecting an actual landing on the beach at Miho Bay by weather conditions. The following points are of especial interest:

(1) By clever use of air force and submarines the Blue main force and convoy were given almost entire freedom of action.

(2) The Blue first division did not sail from Chinkai until daylight of the 26th, and hence was never actually engaged.

(3) The Blue plan worked perfectly but seemed incapable of change to meet unforeseen conditions. Blue had planned to land at Miho Bay, and when unforeseen weather conditions made such a landing impossible either lacked the initiative or ability to alter his plan so as to effect a landing at some other point—Kizuki, for instance—which would be protected from the prevailing north to northeast wind.

(4) (3) above may be partly explained by the fact that the Blue commander in chief, Admiral Taniguchi, was not present at the actual scene of operations and that in the absence of his senior the Blue active commander, Vice Admiral Osumi, either lacked the

initiative to change or feared to assume the responsibility involved in altering the plan of his senior.

COMPOSITION OF FORCES

BLUE FORCE

Navy (Admiral N. Taiguchi, commander in chief)

At Chinkai:

First division (3 battleships), *Mutsu* (flag, Admiral Taiguchi), *Yamashiro*, *Hyuga*.

Fourth division (2 battle cruisers), *Haruna* (flag, Vice Admiral M. Osumi), *Hiyei*.

Fifth division (4 light cruisers), *Kinukasa* (flag, Vice Admiral W. Ugawa), *Kako*, *Furutaka*, *Aoba*.

Second destroyer squadron (1 light cruiser and 12 destroyers), *Kinu* (flag, Rear Admiral I. Okamoto).

Eleventh destroyer division, *Hatsuyuki*, *Miyuki*, *Shirayuki*, *Fubuki*.

Twelfth destroyer division, *Shinonome*, *Murakumo*, *Usugumo*, *Shirakumo*.

Twenty-third destroyer division, *Mochizuki*, *Kikuzuki*, *Mikazuki*, *Yuzuki*.

First submarine squadron (6 submarines), *Jingei* (flag, Rear Admiral S. Omoto).

Twenty-sixth submarine division, *Ro 60*, *61*, *62*.

Twenty-seventh submarine division, *Ro 65*, *66*, *67*.

Second submarine squadrons (7 submarines), *Chogei* (flag, Rear Admiral N. Shigeoka).

Seventh submarine division, *I 1*, *2*.

Eighteenth submarine division, *I 55*, *54*, *53*.

Nineteenth submarine division, *I 58*, *56*.

Aircraft squadrons (3 aircraft carriers), *Akagi* (flag, Capt. I. Yamamoto), *Alagi*, *Hosho*, *Notoro*.

Fourth destroyer division (4 destroyers), *Tachikaze*, *Hokaze*, *Hakaze*, *Akikaze*.

Blue force at Fukuoka:

Convoy and escort (at Fukuoka).

Third division (3 light cruisers), *Yura* (flag, Rear Admiral H. Fujita), *Natori*, *Nagara*.

First Destroyer Squadron (1 light cruiser and 15 destroyers), *Jintsu* (flag, Rear Admiral H. Ichimura).

Thirteenth destroyer division, *Wakatake*, *Kuretake*, *Sonaye*, *Sawarabi*.

Fifteenth destroyer division, *Hagi*, *Tsuta*, *Fuji*, *Susuki*.

Sixteenth destroyer division, *Yugao*, *Fuyo*, *Karukaya*, *Asagao*.

Twenty-seventh destroyer division, *Ashi*, *Hishi*, *Sumire*.

Mine layers, *Tokiwa*, *Shirataka*.

First mine sweeper division, *Nos. 1, 2, 3, 4, 5, 6*.

In addition to the above the following ships were attached to the Blue force:

Three tankers, *Sata*, *Naruto*, *Tsurumi*.

One collier, *Seito*.

One supply ship, *Mamiya*.

Five small transports.

Army.—Lieutenant General Kanayama, commanding

Twelfth army division (infantry) to embark at Fukuoka.

RED FORCE

Afloat at Maizuru; commander in chief, Vice Admiral R. Nakamura (*Nagato*, flagship) (1 battleship).

Sixth division (temporary), *Nagato* (flag, Vice Admiral Nakamura), *Nachi*, *Ashigara*, *Haguro* (3 light cruisers).

Seventh division, *Isuzu* (flag), *Tama*, *Oi* (3 light cruisers).

Third destroyer squadron, *Tenryu* (flag) (1 light cruiser and 12 destroyers).

Eighteenth destroyer division, *Hamakaze*, *Tokitsukaze*. *Amatsukaze*, *Isokaze*.

Third destroyer division, *Nadakaze*, *Yukaze*, *Shiokaze*, *Shimakaze*.

Twenty-first destroyer division, *Kiri*, *Sakura*, *Tachibana*, *Kaba*.

Third submarine squadron, *Karasaki* (flag) and 17 submarines.

Fourth submarine division, *Ro 56, 55, 54*.

Fourteenth submarine division, *Ro 27, 26, 28*.

Eleventh submarine division, *Ro 53, 51*.

Seventeenth submarine division, *I-52, I-51*.

Twenty-fifth submarine division, *Ro 30, Ro 29, Ro 32*.

Ninth submarine division, *I-24, I-23, I-22, I-21*.

In addition to the above the following ships were attached to the Red force: 2 destroyers, *Katsura*, *Kayede*.

Aviation force, two squadrons seaplanes based at Lake Shinji.

Red Army.—Lieutenant General Kawada, commanding

Fifth army division (infantry), field artillery units of Shimono-seki defense area, Yokkaichi air regiment.



SOME BRITISH LETTERS ON CRUISERS

[NOTE.—*The following letters are considered of timely interest, as they contain the views of certain prominent British naval officers and reveal an acute difference of British opinion on the important subject of cruisers.—Ed.*]

The following public letter, published in the London Times on February 18, 1930, from Admiral Sir S. R. Fremantle, Royal Navy, retired, shows how certain circles of the British Royal Navy have reacted to the London naval conference proceedings. Admiral Fremantle served in the Dardanelles in 1915, was deputy chief of the naval staff, 1918–19, and retired in 1928:

SIR: The issues before the Five-power Conference appear to be crystallizing and the time to be opportune for a brief comment from one of those who believe that a powerful British Navy is an essential necessity, first, as the principal insurance for the continued existence and prosperity of the British Empire, and, secondly, by its enhancement of British power and prestige as the most effective contribution to European, if not to world, peace which it is in our power to make.

The fundamental principle which we advocate is that the strength of the British Navy should be decided by the British Empire alone and not by international agreement. It should be the business of the Government of the day, which is responsible to the country for national security, and should be determined solely by our own requirements and our own obligations. This principle, that nations should be their own judges of the strength necessary to them, has been upheld by the French in their clear and logical statement; it is implicitly supported by the Italians; it has not been seriously controverted by the Japanese.

By word and deed we submissively concede this principle; America does so by word, but not by deed. The very calling of the conference, the apathetic interest shown by the country in the vital issues at stake, and the general, though somewhat vague and unenthusiastic, desire expressed in the press for the success of the conference (a success which appears to be obtainable only at the cost of successive British sacrifices) seems to indicate that our first trench has been lost and that in the future the strength of the British Navy is to be the result of a coordinated opinion of the delegates of five nations whose naval needs and obligations vary widely among themselves and differ radically from our own, and none of which has, as we have, been founded, developed, and maintained by sea power.

No conclusive answer has been given to the question why, if the Government of the day in 1927 considered that 70 constituted our minimum requirement in cruisers, they are now content with 50. Admittedly as risk of war diminishes, insurance premiums can be reduced. One great event only, the Briand-Keillogg pact, has in the past two years affected the risk of war. But the pact includes no guarantees for its enforcement, and its originator is building a fleet for

which it is difficult to conceive an object other than that of supporting her policy. If 23 cruisers in the Indian Ocean and 17 in the South Atlantic were required to locate and bring to action a single cruiser in each of those seas, how can it reasonably be contended that a strength of 50 is not ludicrously insufficient for the needs of reasonable safety of our manifold trade routes in the seven seas, together with the scouting service of the main fleet of capital ships?

Apparently we are to be content with approximately 150 destroyers. In the Great War some 140 destroyers were required solely for service with the Grand Fleet and its advanced element of light forces based at Harwich. Another 20 or so were required at Dover, an indication of the strength in light craft which will always be required for warfare in narrow seas. We finished the Great War with 390 destroyers, yet we never had enough and at one time were losing for want of them one ship in every four of those maintaining the communications of the Salonica army. Had our destroyer force not been reinforced at a critical moment by a most efficient flotilla from the United States, nothing could have averted a serious crisis in our fortunes. There seems little chance that the submarine will be abolished; if there were, possibly our destroyer requirement might be considerably reduced. But no agreement as to the use of submarines is likely to prevent an enemy from doing his utmost to drain the lifeblood which flows to us from overseas—our food, our oil, our raw materials.

In conclusion, may I remind your readers in the words of Lord Fisher that an initial naval disaster in war is irreparable, irretrievable, and eternal; that naval strength, whether in personnel or in material, can not be extemporized; and that injudicious reductions of our Navy have invariably been succeeded by panic building programs to the detriment both of national economy and naval efficiency.

The following public letter jointly signed by Cyril S. Cobb and Commander H. M. Denny, Royal Navy, retired, the respective chairman and secretary of the British Navy League, appeared in the London Times of February 18, 1930, under the caption "Claims to Cruisers":

SIR: Now that the five powers at the naval conference have stated their policy and the tonnage of the various classes of vessels required, it has become evident that France, Italy, and Japan are following the lead of the United States in demanding an increase rather than assisting in that policy of limitation of armaments in which Great Britain has already played so large a part.

For example, take the cruiser question. If France is allowed 10 large cruisers carrying 8-inch guns and Italy demands parity (i. e., the same number), and Japan insists on seven-tenths of 18 (the minimum United States of America demand), that is, 12-13, then, dangerous as the position is for us at the moment, it will be much worse in 1936. In that year all those nations will be equipped with new cruisers, probably of an improved Ersatz Preussen type, whereas we, as we are not laying down any new cruisers, shall have to rely on the 15 large cruisers now allowed us, some of which will, by that time, be becoming obsolete. Moreover, the conditions of our Empire responsibility render it essential that our cruiser force should be distributed over the seven

seas; the other powers, owing to the concentration of their national interests in a comparatively narrow sphere, will always have a very large local superiority of cruiser force. Such superiority, greatly assisted by large numbers of destroyers and submarines now building and projected, will at any time and in any such place enable them to dominate the situation, whether in peace or in war, and so our trade and food supplies will be at their discretion.

If the five-power conference is to be used merely as a method for reduction in the size of the British fleet, leaving the other fleets of the world as strong as, or even stronger than, before, then it is time that the British public woke up to a realization of this position, especially in view of the most striking historical examples cited by your correspondent "Historicus"¹ in your issue of to-day.

¹ The following public letter, signed by "Historicus," on the subject of the London Naval Conference, appeared in the London Times on February 17, 1930:

"SIR: The Prime Minister, in his reply to Mr. Baldwin on February 13, connected the reduction in cruisers with the pact of Paris with the powerful support of which 'we feel justified in looking forward to a period in which armed conflicts need not be expected.'

"May I point out that occasions have occurred in which expectations of peace, founded upon a current political situation, have been sadly disappointed; though those expectations were entertained by men no less versed in foreign affairs, no less peace loving, and hardly less sagacious than His Majesty's ministers of to-day?

"No man wished more for peace than Pitt. His whole policy of the reconstruction of finance, the great work to which he was devoted, demanded peace. In his budget speech of February 17, 1792, he demanded a reduction in the British naval and military expenditure because 'unquestionably there never was a time in the history of this country when from the situation in Europe we might more reasonably expect 15 years of peace than we may at the present moment.'

"Almost exactly 12 months later (February 1, 1793) the war began which lasted for over 20 years.

"On July 5, 1870, Mr. Hammond, the permanent undersecretary at the Foreign Office, proved an equally unfortunate prophet when he assured Lord Granville that he had never in his long experience known so great a lull in foreign affairs. Six weeks later, on July 19, the Franco-Prussian war began.

"We may not look on Lord North as a very sagacious man; nevertheless he held the reins of power. In 1772 he urged a reduction in the naval expenditure, justifying it on the same argument of 'improbability.' Writing to the First Lord on September 5, 1772, he said:

"'I do not recollect to have seen a more pacific appearance of affairs than there is at this moment. . . . This is the time, if ever there was a time, for a reasonable and judicious economy. . . . Great peace establishments will, if we do not take care, prove our ruin.'

"For these reasons he insisted upon a reduction in naval expenditure. True, he did not reduce the number of the ships, as our present ministers propose, but he rendered them ineffective by not furnishing the supplies which would enable them to be maintained in an effective condition. The losses and catastrophes of the war of 1775-1783 were the aftermath of his prophecy and policy.

"Finally, is it not within our recollection that similar settlements were expressed to justify a severe reduction in the naval expenditure in the spring of 1914 by a British minister?

"The pact of Paris may indeed give a more 'powerful support for peace' than existed in these earlier instances. But we can not discover in the vast increases in naval expenditure of other nations, in the creation of navies which before hardly existed, any evidence of confidence in the pact as a means of preventing war. Their doctrine would seem to be 'Put your trust in the pact but keep your powder dry.' Ours, on the other hand, is to damp our powder, for no one imagines for a moment that with the attenuated force of heavy cruisers which is now proposed it would be within the bounds of practical possibilities to defend the sea communications of the Empire."

The following public letter, from admiral of the fleet, Sir Arthur D. Fanshawe, Royal Navy, retired, was published under the caption "Cruisers and Trade" in the London Times on February 28, 1930:

SIR: The proceedings of the naval conference seem now to make abundantly clear that the drastic and dangerous weakening of our cruiser trade protection gratuitously offered by the present Government has evoked no corresponding response whatever from other powers. I submit that it is now urgently necessary to call public attention to this vital question in the interval before Parliament will finally dispose of this matter.

It must surely be remembered that cruisers take at least two years to build and equip, so that no remedy can be at hand in future to save our country from starvation and disaster which neglect now to maintain adequate cruiser protection to our trade routes may bring upon our country. The purely defensive purpose of these cruisers and their cost, is obviously very reasonable and moderate if looked upon only as an insurance upon the immensity of the value of the trade constantly passing. Deliberately to deny to those who will follow us the same protection to their vital necessities that we have enjoyed is surely a form of selfishness unlikely to find favor with fair-minded people, provided they understand the situation.

The following public letter from Admiral Wilfred Henderson, Royal Navy, appeared under the caption "Small Cruisers" in the London Times on March 6, 1930:

SIR: From articles and correspondence in your columns it seems that our Government's statement announcing a reduction in cruisers from 70 to 50 has caused sensation approaching dismay in some circles and a demand for information as to what can have supervened in the last year or so to warrant this reduction, in spite of the Prime Minister's explanation to the effect that, in the Government's view, the Kellogg pact justified the decision.

I have read the several letters from admirals on the subject, the burden of all of them being that we are dependent on our Navy for the safety of our trade routes and therefore for the safety from starvation during war of our population.

Admiral Fremantle, in a recent letter to you, reminds you of the colossally disproportionate number of cruisers required in the early days of the Great War to run down two little German cruisers, one loose in the Atlantic and the other in the Indian Ocean. He then proceeds to draw from this fact the deduction that a very much greater number of British cruisers would be required in the event of more than two small enemy cruisers being loose on our trade routes. I know of no justification in history for this theory that the safety of our supply routes is dependent on a multiplicity of small cruisers, but I do know of a very significant instance in history to the contrary, and my verdict on the hypothetical situation envisaged by Admiral Fremantle is that if the number of "loose" enemy cruisers were multiplied the problem of the safety of our trade routes in terms of small cruisers would become frankly insoluble.

Apart from the historical instance just referred to and to which I shall allude again presently, I derive my faith from a good source—

no less an authority, in fact, than my old chief, Lord Fisher. In one of his terse dicta he described small cruisers as "too weak to fight and too slow to run away." The Dreadnaught battle cruisers were the children of this faith, and there could be no better exemplification of it than the battles of Coronel and the Falkland Islands. In the former the British weak cruisers were overwhelmed by the superior Germans, and in the latter the tables were turned by the very battle cruisers which he, Lord Fisher, designed for just such occasions—it was his triumph! He "scrapped" as many small cruisers as he could, and he knew better than his short-sighted critics what he was about; he remembered the lesson, almost forgotten in this country, which the United States of America taught themselves and us in 1812, when the superfrigates *President*, *Constitution*, and their four sisters, with their superior size, speed, and armament, practically swept the British frigates—the cruisers of those days—off the seas.

I assert without hesitation that if we continue to cherish the delusion that a multiplicity of small cruisers is going to secure our trade routes in war with any power of approximately equivalent naval strength to our own then we are living in a fool's paradise. If a ship of the type of the new German supercruiser got loose at sea against our trade in war, we should be compelled not only to resort to convoying our trade, but we should have to escort the convoys with the biggest cruisers we possess—that very type of cruiser, in fact, which Lord Fisher designed and eventually handed to Admiral Sturdee to wipe the weaker German squadron off the seas. De Ruyter used the whole of his fleet to convoy the Dutch trade in our wars with Holland. What use were our small cruisers while that German squadron was still intact? None at all! The mere presence of the German squadron "in being" was sufficient to drive all our trade into its bolt holes.

If we want security for our population from starvation in war time, the sensible course for us to pursue is to surrender frankly our medieval conception of the rights of belligerents and the nonrights of neutrals in war, and agree with the United States of America in their long and consistently held view of freedom of the seas except in blockaded waters. This will at least insure our food supplies—they will arrive in neutral bottoms, and British shipping must be convoyed. *Du reste*, naval warfare will then be as it was in the past—namely, an affair of navies; the civil population will no longer be the cat's-paw; and naval war will be decided (unless limitation of tonnage and gun caliber are agreed upon) by the nation possessing the largest, fastest, and most heavily armed vessels. No amount of small cruisers will be of any avail whatever.

The foregoing letter from Admiral Henderson drew forth the following public reply from Admiral Sir Reginald Custance, Royal Navy, retired, published in the London Times on March 8, 1930:

Sir: May I be permitted to comment on Admiral Henderson's letter in your issue to-day? The admiral asserts that in the War of 1812 the large American frigates practically swept the British frigates off the ocean. In the years 1905–1907, when Lord Fisher was First Sea Lord, I examined the whole cruiser question, including this very point, and found that the facts of the War of 1812 do not support such

an assertion. My arguments can not be reproduced in a letter but are to be found in my book, *Naval Policy*,² under the *nom de plume* of "Barfleur."

²(The following extracts taken from a chapter of Admiral Custance's book, *Naval Policy*, first appeared in *Blackwood's Magazine*, June, 1905, under the caption "The Policy of Scrapping," and was contemporary with Admiral Fisher's "revolution" in the Royal Navy.—Ed.)

" * * * The war between Great Britain and the United States in 1812 was due to differences relative to the rights of neutrals. These differences arose during the wars of Napoleon and disappeared with the downfall of that remarkable man. With no great political object at stake, the war was carried on in a desultory and halfhearted manner and assumed the form of a maritime attack on trade, coupled with a series of ineffectual land raids on territory. In its broad features, the war was similar to the American Civil War of 1861-1865. In either case a greatly superior navy established a close blockade of the hostile ports; but in 1812 the weaker side—the United States—owned a small navy, harked by a cloud of privateers, whereas in 1861 the Confederate States possessed neither navy nor privateers, unless the *Alabama*, *Sumter*, and others be reckoned as such. It is the small American Navy of 1812 which makes this war so instructive and interesting that its examination with some minuteness is necessary.

"The United States declared war on June 18, 1812. On the 21st Commodore Rodgers put to sea from New York with the *President* and *United States*, rated 44 guns; the *Congress*, 38; the sloop *Hornet*, 18; and the brig *Argus*, 16. His object was to intercept a large convoy which had left Jamaica on May 20 for England. On the 23d he sighted the *Belvidera*, rated 32 guns, which was chased by the whole squadron. The *Belvidera* escaped by throwing overboard stores and starting water to lighten herself. After an interval the chase of the convoy was resumed and continued until July 13, when, being within 20 hours' sail of the English Channel and seeing no sign of it, the squadron altered course and reached Madeira on July 21. Rodgers then steered for the Azores and Grand Banks and reached Boston on August 31. He had met and chased without success the *Statira*, 38, and had taken only seven prizes during a cruise of 70 days, but indirectly his expedition had exercised a far-reaching influence.

"The *Belvidera* reached Halifax on the 27th, but it was not until some days later that the admiral at that port received definite news of the declaration of war. On July 5 the British squadron sailed from Halifax under the celebrated Captain Broke, of the *Shannon*, rated 38; *Africa*, 64; *Belvidere*, 36; *Acolus*, 32; and was joined off Nantucket on the 9th by the *Guerriere*, 38. On the 14th the squadron was off Sandy Hook and learned that Rodgers's squadron was at sea. On the 16th the *Nautilus*, 14, was captured, and on the following day the squadron chased the *Constitution*, 44, which had left Chesapeake Bay on the 12th for New York. After a chase lasting upward of two days the American frigate escaped and, not being able to enter New York, reached Boston on the 26th.

"The uncertainty as to the movements of Rodgers's squadron not only forced Broke to keep his squadron concentrated, but made him anxious for the safety of a homeward-bound fleet of about 60 sail from Jamaica under the convoy of the *Thetis*, 38. He therefore met it on July 29 at a position of some 500 miles from the coast of America and accompanied it for a distance of about 500 miles. He left it on August 6, detaching the *Guerriere*, 38, to Halifax to refit, and proceeding with the remainder of the squadron toward New York, off which port he was reported on September 10. He had thus been absent from the American coast—the most important cruising ground—for more than six weeks. During this interval Rodgers's squadron had been able to reenter Boston unmolested, and the American privateers had been free to attack British shipping.

"On August 2 the *Constitution*, Captain Hull, sailed from Boston in the hope of meeting the British frigate *Spartan*, 38, reported to be to the eastward. Not meeting her, he stretched along the coast toward the Bay of Fundy, then proceeded off Halifax, and thence to the trade route off Cape Race, where he captured some prizes. Learning on the 15th that Broke's squadron was off the Grand Bank, and therefore not far off, Hull stood to the southward to avoid him, intending to go off the southern coast of the United States, but on the

The admiral's misreading of history is important, because it is the starting point of our mistaken shipbuilding policy since the year 1894 and of the mistaken strategy which led to our immense losses at

19th met, captured, and burnt the *Guerriere* and returned to Boston on August 30.

"On October 8 Rodgers left Boston with the *President*, *United States*, *Congress*, and *Argus*, and on the third day out chased, but soon lost sight of, the *Nymphe*, 38. On the following day, being outside the supposed line of the enemy's cruisers and no longer fearing attack by superior force, the *United States* and *Argus* parted company with the squadron, and each proceeded to cruise separately. Fourteen days later the *United States* captured the *Macedonia*, 38, and then returned to New London, where she arrived on December 4, her prize going into Newport and thence to New York by Long Island Sound. The *President* and *Congress* also nearly captured a British frigate—the *Galatea*, 36, which was chased on October 31, but managed to escape during a dark night with the loss of a ship under her convoy. The two ships returned to Boston on the last day of the year, having captured nine prizes.

"On October 26 the *Constitution*, 44, Commodore Bainbridge, and *Hornet*, 18, left Boston, intending to meet at a rendezvous in the South Atlantic the *Essex*, 32, which left the Delaware two days later but never joined. On December 29 the *Constitution* captured and destroyed the *Java*, 38, off the coast of Brazil. The need for repairs then caused Bainbridge to return to Boston, where he arrived on February 27.

"The *Chesapeake*, 38, left Boston on December 17 and returned on April 18, having taken five prizes, been chased by a line-of-battle ship and a frigate, and chased a British sloop unsuccessfully for two days.

"The general direction of the cruises made by the *President* and *Congress* by the *United States* and *Chesapeake*, was to pass about 250 miles south of the Azores and thence to the Cape Verde Islands, whence they stretched across to the South American coast and thence back to the United States, passing eastward of the West Indies. The intention was to intercept the trade to South America and round the cape. It will be noted that in making for the centers where the trade routes crossed they were anticipating the movements of the *Alabama* 50 years later.

"The proceedings of these frigates are very instructive. They show the risks run by an inferior force in the neighborhood of a superior enemy. Two American frigates—the *Constitution* and *Chesapeake*—and four British frigates—the *Belvidera*, *Statira*, *Nymphe*, and *Galatea*—were nearly captured by squadrons, while three British frigates—the *Guerrière*, *Macedonian*, and *Java*—were actually taken in single action by the larger and more powerful American frigates of the *Constitution*, 44, class. They afford proof that if one side concentrates the other must follow suit, unless it is prepared to see its important units picked up singly. Thus the concentration of Rodgers's squadron compelled the formation of Broke's. The heavy American frigate forced the British frigates to cruise in pairs, after which no British frigate was captured.

"The lessons are equally applicable in the present day, since strategical principles are independent of the motive power.

"Recent experience confirms this view. In the very instructive maneuvers of 1901 the same lesson was taught. Both sides properly concentrated their cruisers, which met and engaged off the Lizard soon after the commencement of hostilities. This method of using the cruisers was somewhat criticized at the time, but it was quite in accordance with war experience. It is true that the result of the action reduced greatly the number of scouts available, but the want of them was of no moment, as the two fleets, being equal in fighting power, could not do otherwise than seek each other, as they did. If the cruisers were to be eventually used to attack or defend the trade, each was best preparing to fulfill either rôle by destroying the enemy's ships of war. Again, during the Russo-Japanese War the Russian cruisers from Vladivostok, equally with the Japanese under Kamimura, were compelled to keep concentrated by the reciprocal and threatening action of the one on the other. But this concentration will usually be carried further, since it is a first principle in strategy to be as strong as possible at the decisive point. The armored cruisers are now so large and powerful and form so great a proportion of the available fighting strength that both sides will be obliged to concentrate both battleships and armored cruisers. If the concentrated squadrons are nearly equal in fighting power they will seek each other and fight, as occurred during the maneuvers of 1901. If they are not

sea during the war. It is not without interest to note the admiral unwittingly giving away his whole case.

The above letter on "Small cruisers" from Admiral Henderson brought forth another public reply published under the caption

equal, and both remain in the same waters, they will meet sooner or later by accident, as occurred when the *Russia*, *Gromoboi*, and *Rurik* were intercepted by Admiral Kamimura and the last-named ship was sunk. If the fight is to be avoided the weaker force must either remain in port or move into more distant waters, as the Americans were driven to do during the War of 1812 by the overwhelming superiority of the British force on their coast. On the outbreak of the war this force was very small. Great Britain could not then concentrate a force any stronger than that of America, whose entire Navy at the beginning of the war consisted of 7 frigates, including 2 not available, 1 corvette, and 8 small craft.

"The British force on the North American and West Indian stations was gradually increased, and on the undermentioned dates approached—

	September, 1812	January, 1813	July, 1813
Ships of the line.....	4	7	14
Frigates.....	22	29	46
Small ships.....	60	61	78

"When the weaker force leaves the principal theater of war and threatens other trade centers, it is an admission of inferiority and an indication either that he can only hope for success by causing the stronger to disperse his forces, as was the object of Napoleon in sending Villeneuve to the West Indies in 1805; or that he renounces altogether the struggle for the command of the sea and is content to confine his effort to an attack on trade, an altogether secondary object, as was the design and aim of the United States during the war of 1812.

"The policy of dispersion adopted by the United States after the first three months of war acted reciprocally on the British, who sent detachments to St. Helena, Madeira, and the Azores to cover the trade in those waters. The force employed on this service toward the close of the year amounted to 7 sail of the line, 12 frigates and small vessels, and in addition to these numerous ships were employed on convoy service.

"The strength of detachments is governed by the principle that superiority in fighting power at the main decisive points is maintained and assured, and that each detachment is at least equal to fighting any enemy which it is likely to meet. This was achieved by including one or two ships of the line in each of the more distant detachments, a proceeding which would not have been possible if the United States had possessed a fleet of ships of the line, because important units would then have been exposed to destruction in detail.

"The system of meeting the attack by strong detachments and powerful convoys was supplemented by arrangements to blockade the frigates which when free threatened every weaker force. This was done, and after April, 1813, the American frigates with difficulty got to sea. To prevent further captures of frigates by such of the powerful American 44's as might break the blockade, the British frigates, as before mentioned, were ordered to cruise in pairs, which proved to be a very effectual remedy.

"The effect of the concentration of the frigates was that both sides made few captures of merchant ships. Up to April, 1813, six American frigates captured, as far as can be ascertained, only 42 prizes, although the total number of captures of British ships reported in the United States up to the end of September, 1812, was 190, as against, for the same period, about 70 taken by the British ships of war, no letters of marque having as yet been issued. During the remaining two years of the war concentration was abandoned, and the American frigates cruised singly. Three out of the seven were captured, and they only took 36 prizes, or a total of 78 for the whole war, out of about 2,500 taken—or 1,750 if the recaptures, according to Mr. Adams, are omitted. Their want of success was due to small numbers, to difficulty in getting to sea past the

"Protection of Trade" in the London Times on March 12, 1930, from Admiral Sir Herbert Richmond, Royal Navy, retired. Admiral Richmond will be remembered as the author of the article *Smaller*

blockading squadrons, to being driven out of the more frequented waters into distant seas, and to the convoy system, which made it more difficult to pick up prizes.

"The large number of captures made by the Americans was due to their small ships, and mostly to their privateers, which, at the outset of the war, issued from American ports in considerable numbers. During the first few months of the war any craft which could carry a gun and keep the sea was considered good enough. Many were armed with only one or two 9 or 12 pounder guns, and carried crews of 80 men or less. The multiplicity of these small ships, combined with their moderate individual value and importance, favored dispersion, which is the true rôle of the small ship as against concentration for the capital ship. But the presence of British squadrons on the coast soon made themselves felt. While the American frigates were concentrated and, later on, when they were blockaded or driven away to distant seas, the British cruisers were free to deal with the American small craft. Twenty-four privateers were captured between July 1 and August 25, 1812. Four out of eight United States sloops and brigs were captured during the first seven months. During the war about 250, or one-half the total number of American privateers, fell into British hands. This was the result of superior fighting power and not of superior speed. The pressure of the British cruisers was such that sloops and privateers of a special type were built at a cost of about one-fifth that of a frigate. They were fast enough to get away from a frigate except in heavy weather and powerful enough to fight any ship of their own class. These vessels broke the blockage of the American ports with less difficulty than the frigates and cruised in distant waters; they met with the greatest success in the British seas and West Indian waters, where the shipping was most numerous and was mostly unprotected by convoy. During the last 18 months of the war upward of 1,000 merchant ships were captured, of which more than 700 were taken in seas remote from America.

"The War of 1812 showed that during the sailing era a small number of frigates was not a great danger to commerce, but that a large number of small craft was much to be feared. * * *

"Given small ships in sufficient numbers, it is reasonable to infer from the history of the past that the necessary concentration of the armored cruisers and capital ships will leave these small ships free to prey on the trade. British merchant ships have mostly less than 12 knots speed, and during any future war will be at the mercy of any moderately fast—say 15-knot—ships which can carry a gun and keep the sea, if no steps are taken to meet them. Former Admiralties have recognized that the attack would be made at an early period of the war and provided for it by placing ships to meet it. For instance, the South Atlantic Squadron—now abolished—covered the large trade which passes Cape Verde from the cape and South America. The new departure, under which many ships have been condemned, swept away 'with one courageous stroke of the pen' a large proportion of the force available for the convoy service and protection of the trade, which will be certainly necessary in time of war. * * *

"The general argument may now be shortly restated. During the early stages of a war, if the command of the sea is disputed, the battleships and armored cruisers will be concentrated and will be fully occupied in dealing with each other. During this time the small ships will be free and will spread to operate on the communications—to attack and defend the trade. After the decisive action between the main fleets, if such be necessary, the winner will gradually dominate the seas forming the principal theater of war and will drive from it the hostile ships. His own small ships will be more or less free from attack, but those of the enemy will be exposed to attack by superior forces.

"Apparently the German shipbuilding policy has been hitherto based on this view of war. Their main efforts have been concentrated on battleships, third-class cruisers, and destroyers. The armored cruiser has been only sparingly developed. The battleship is intended to fight the decisive action, while the small cruiser will be free to attack the sea communications. The destroyer and the torpedo boat are the unknown quantities which, it is hoped, will assist the battleship in the narrow waters of the North Sea. * * *

Navies, published in the Office of Naval Intelligence BULLETIN (January, 1929). His letter follows:

SIR: Admiral Henderson tells us that he knows no justification in history for any need for a large number of small cruisers for the defense of trade and other routes. This, I am afraid, amounts merely to an admission that his study of the problem in question has been very incomplete, for he will find ample evidence in the history of war if he studies (a) the methods and operations of the defense of trade and the distribution of ships and vessels, and (b) the statistics of "cruiser" strength in the general "categories."

To discuss (a) would involve writing a treatise on trade defense, which is obviously impossible within the space available. But some indication of whether a large number of "small" cruisers have been needed in war may possibly be obtained from the following figures, dealing with two periods widely separated in time, in which very different material was in use. The increase and decrease of the "light" and "heavy" vessels, respectively, is suggestive:

Class	1793	1810	Increase or decrease
"Heavy" frigates (56 to 44 guns).....	30	15	-15
Frigates (38 to 20 guns).....	96	162	+66
Sloops (18 to 10 guns).....	38	246	+208
Brigs, etc. (14 to 10 guns).....	0	144	+144

Class	August, 1914	November, 1918	Increase or decrease
Armored cruisers.....	46	27	-19
"Light" cruisers.....	79	103	+24
Sloops and destroyers.....	260	558	+298
Armed escort ships:			
Auxiliary cruisers, boarding vessels.....	0	63	+63

The figures for "frigates," etc., are for vessels in commission and in ordinary; those for "cruisers," etc., for effective ships, built and building.

Everyone is of course aware that smaller vessels can not fight larger ones, more heavily armed; and that if larger vessels exist and are capable of acting, their equals must also be provided, in greater numbers, if communications are to be secured. True as this is, it is no less true, as the above figures illustrate, that a limited number of large vessels can not defend communications such as those of this country against a large number of small ones, for the simple reason that they can not be where they are wanted when they are wanted. The lesson is a very old one; I imagined that every student of war at sea was aware of the fact.

Admiral Henderson asserts that Von Spee's squadron "drove all our trade into its bolt holes"; and infers that this result followed from the fact of his having armored cruisers in company. The statement partakes of that inaccuracy which characterizes other parts of his letter, to which attention has been drawn by other writers, for it was a very small proportion, and not "all" of our trade that was temporarily suspended on the Chilean coast. It does not, however, require

a large vessel to produce this result, as he appears to imagine. Precisely the same thing happened when a light cruiser—the *Leipzig*—was cruising between Panama and Vancouver. The *Emden* tells the same tale. Hence the need for light cruisers.

If I refrain from pointing out the many other fallacies in Admiral Henderson's letter, it is merely because I can not expect you, sir, to afford space for the purpose.

Admiral Wilfred Henderson replied to the foregoing letters from Admirals Custance and Richmond in another public letter published under the caption "Small Cruisers" in the London Times on March 19, 1930, as follows:

Sir: Please allow me to reply to the criticisms of Admirals Custance and Richmond on my letter of March 6, relating to small cruisers.

First, Admiral Custance's criticism must be heavily discounted by the fact that he was a determined opponent of Lord Fisher's policy, who, together with all his works, was anathema in the admiral's judgment; hence his book under the nom de plume of "Barfleur." Secondly, he makes the mistake of assuming that because he "examined the whole of the cruiser question" his own interpretation of historical facts is necessarily correct and that Lord Fisher's, Admiral Mahan's, and other authorities is wrong.

Those who do not accept Admiral Custance's interpretation hold their own as proven correct by the very fact of the insistent stand taken by America on the question of large cruisers. Remembering the lesson of 1812-1915, the United States of America intend to have as many "superfrigates" as they want and are not going to sit down and have us "pull wool over their eyes" by claiming to balance their big cruisers and keep innumerable small cruisers into the bargain.

Our "immense losses at sea during the war" were due chiefly to submarines—a brand-new and untried weapon. As soon as we had discovered the technique of dealing with them our losses diminished; they had nothing whatever to do with our shipbuilding policy since 1894, still less with small cruisers.

I do not intend to be enticed by Admiral Richmond into a war of statistics (newspaper columns are no place for that), except to pull his, which are not even correct, to pieces. To bolster up his arguments he selects for comparison two periods—1793-1810 and 1914-1918. He avoids carefully the very years—1812-1915—to which I referred and during which panic shipbuilding took place to meet the challenge of the American superfrigates. He omits to tell you that in 1914-1918 the decrease in armored cruisers was due to elimination of predreadnought type and substitution therefor of the much larger and therefore less numerous dreadnought type of battle cruiser. Thus in his former period we lacked superfrigates and two years later had to pay for it, and in his latter period we started with modern "superfrigates" and built more as fast as we could. You would not think that after looking at his statistics.

Our "light" cruisers, except those associated with destroyers, accomplished surprisingly little in the Great War, just as Lord Fisher predicted would happen, and in that degree were waste of money.

But Admiral Richmond attaches great importance to figures and tells you that we started the war in 1914 with no auxiliary cruiser. He

does not want to remember all those fast merchantmen, not only earmarked long before 1914 for use as auxiliary cruisers in war, but actually armed during peace time with a stern gun apiece. Really his statistics should have been more cunningly chosen; and eventually he admits my point, which he says is true, but goes on to try to qualify this admission by urging his own inaccurate and irrelevant statistics.

Admiral Richmond is a student of naval history, but must be placed in that academic class in which mind becomes so distracted by masses of detail and statistics that the essential point is missed—they can not see the woods for trees. The “Fischer touch” is still unbeaten.

Again, writing a public letter, under the caption “Small Cruisers” in the London Times of March 26, 1930, Admiral H. W. Richmond replied to Admiral Wilfred Henderson’s above-quoted letter as follows:

SIR: Although Admiral Wilfred Henderson has claimed the support of history for his theories, he declines to accept the evidence of the importance attached to the smaller cruisers which history furnishes during 15 years of war. His interpretation of history appears to be that it is confined to the particular period 1812–1815. As he accuses me of avoiding the years to the evidence of which he attaches importance, I will, with your permission, carry the investigation into those years. I stopped at 1810 for the simple reason that in that year we reached the maximum of our cruiser strength.

Admiral Henderson asserts that in the years 1812–1815 “panic shipbuilding” took place to meet the challenge of the enemy heavy cruisers. If that be so, it is strange that the number of heavy cruisers in commission only increased from 11 in 1812 to 17 in 1814. (I omit 1815, as the wars were at an end in 1814.) As to the panic shipbuilding, the figures for cruisers building or ordered to be built in the beginning of 1813 and 1814 were as follows:

	1813	1814
Heavy cruisers.....	8	5
Medium and light.....	39	29
Sloops, brigs, etc.....	33	10

An increase of 13 large cruisers as compared with 111 of the lesser and smaller vessels furnishes no corroboration of Admiral Henderson’s theories.

I am as interested to learn that our light cruisers (other than those with the flotillas) accomplished so little in the late war as I am surprised that if that were so we added no fewer than 24 of them to our fleet. But I am frankly astonished that he should suppose that “all those fast merchantmen” which I “do not want to remember,” armed with a gun in the stern, were intended for “use as auxiliary cruisers in war.” They were not. They were vessels armed, as merchantmen in the past were armed, to defend themselves against capture. A “cruiser,” whether regular or auxiliary, is a vessel which can be used in any service in war. She is a commissioned ship of the State. These ships were not commissioned. If they had undertaken any operation, such as attempting to stop, board, or examine a neutral ship, they

would have been guilty of piracy. To call such ships "cruisers" is wholly to mistake the nature of the status of such vessels.

If, however, Admiral Henderson had been right in considering these ships as "cruisers," the existence of these supposititious men-of-war merely furnishes an addition to the weight of evidence against his theories. It swells the number of "light" cruisers we found necessary in the late war from 103 to 142, for there were 39 of them.

As to Admiral Henderson's last paragraph, I prefer not to follow him in the methods of controversy he there employs.

Writing under the caption "Sea Control Cruisers," in the *Naval and Military Record* (London) of April 2, 1930, Sir Herbert Russell reviews in critique fashion the differences of opinion on cruisers as expressed in the foregoing letters from the British admirals and develops the following interesting dissertation on cruiser warfare:

When admirals differ, heartily and wholehoggedly, the likes of me may well feel that he is not trenching upon any exclusive professional preserve by butting in with his own views upon a subject to which he has taken the liberty of giving a good many years of quiet thought. We have recently had a duel in the columns of *The Times* which, although not so heated in the various letters, virtually involves the crucial problem of the defense of our sea communications in war. Admiral Sir Reginald Custance is the exponent of the principle of small cruisers and numbers. Admiral Wilfred Henderson is all for big cruisers—the biggest possible. Admiral Sir Herbert Richmond inclines to small cruisers and numbers, but has seemed to me to be rather more concerned to pulverize Admiral Henderson than to confirm Admiral Custance. Admiral Henderson comes back with a triumphant paean about "the Fisher touch"—and then, of course, we know where we are so far as his doctrines go.

History has been dragged in to prove and disprove. Admiral Henderson quotes the experiences of our last war with America, in which he declares that the bigger and much more powerful Yankee frigates swept our smaller ships from the seas. Admiral Custance controverts this on the grounds that his own study of the War of 1812 does not support any such conclusion. Now, what is the real point involved in this particular phase of the controversy. The crews of the American frigates were very largely composed of Englishmen. Therefore we may admit that the human element was as nearly equal in quality and courage as it was possible for it to be. Under such conditions can there be any question that the bigger and much more powerful frigate would be more than a match for the smaller vessel? Nearly all the American triumphs were over much smaller vessels, particularly inferior in their armaments. It may be a figure of speech to say that the big American frigates swept our smaller vessels off the seas, but they nearly always beat them when they came across them. Here Admiral Henderson has history on his side, and therefore he is right. But being right in one illustration of what happened considerably more than a century ago does not mean that he is right in what would happen to-day. The big, heavy ship will always beat the smaller ship under approximately equal conditions in the human element. That we may accept as an axiom for all time. If defense of the sea communications were still a matter for frigates alone (including corvettes in the category, if you

like), or their modern successors—cruisers—then Admiral Henderson would be incontrovertibly right. But in truth it is nothing of the sort. The big frigate went in quest of the smaller frigate, and that was the whole of her job. The big cruiser goes in quest of the smaller cruiser, but that is only the beginning of her job. There are submarines, destroyers, aircraft, and mines to be reckoned with to-day. In the frigate era there were no such nuisances to trouble about.

Let us assume ourselves at war with an enemy who actually possesses more of the latest, biggest cruisers than we do, although considerably fewer smaller cruisers. Let us further assume—although this is stretching probability to extreme limits—that such enemy will devote practically his whole strength in latest, biggest cruisers to paralyzing our trade. On what lines would his campaign develop? Take it that his geographical position is such that he is free to indulge either in oceanic war (loose cruiser tactics as practiced by the *Emden* and *Mocwe*) or in concentrated operations in focal zones. It is doubtful whether he would venture to risk his big cruisers in focal zones, where he would count upon finding submarines, certainly, and mines, probably. The converging approaches to the focal zones would probably be the selected hunting grounds of the big enemy cruisers. The ocean is too wide a place altogether to be very profitable when once merchant ships begin steering wide of the regular “lanes.” The *Emden* found most of her victims just where she expected to find them, faithfully following the chart. We were all too long in establishing convoy and the routing of ships; in the event of another great naval war let us trust we shall know better.

The assumption, so far, is that the enemy is using his big cruisers upon the approaches to the focal zones of trade. This is a point in favor of Admiral Henderson's contention. It would be merely foolish to send smaller, weaker cruisers to try and deal with these bigger ships. But these bigger ships will only represent part—and by no means the biggest part—of the enemy effort against our commerce. For every big cruiser hovering in quest of prey he will probably have five or six submarines. The submarines will be much more dangerous because they will not linger in the outer approaches; they will come right into the focal zones. The big cruisers might attempt to follow, regarding their submarines as a protective screen. But protective against what? Our smaller cruisers? No need! Our submarines? No good! What we have to realize is that whatever policy we may decide upon in connection with the defense of sea communications the enemy will decide upon exactly the opposite policy. If we are weaker than he in big cruisers, he will employ all his big cruisers (as far as our general aggressive strategy will permit) for trade destruction; if we are stronger than he in big cruisers he will employ his utmost strength in submarines and not unnecessarily risk his big cruisers. Probably it is true to say that he will employ both in trade destruction to the limit of his capacity.

What, then, have we got to face? Let us try and define the situation by defining it in hypothetical numbers. An enemy is threatening our sea communications with 15 big cruisers, 20 small cruisers, 30 destroyers, and 60 submarines. The extent of the air menace we will leave out of these calculations of sea power. Even if we give the big cruisers a destructive ratio of twice that of all the other types (and I

know of no reason for assuming that it would actually prove as high as that of an ocean submarine), still these vessels would only represent about 25 per cent of the total enemy effort against our trade. In the frigate era they would have represented (in different proportions, of course) the whole effort. This is where I think Admiral Henderson's argument breaks down. He does not, like Admiral Custance, envisage the need for meeting the other 75 per cent of enemy effort against our commerce. His line of reasoning, as I follow him, is that if we are in a position to mop up all the enemy big cruisers all will be well. In other words, we ought to feel comfortable if we can account for 15 trade raiders out of 125. Viewing the position in this light, it does seem to me that Admiral Sir Reginald Custance is right in his contention that numbers rather than the maximum size of a comparatively few ships is the sound policy for this country. Of course, we must take the risk of our smaller cruisers suffering at the hands of the enemy big cruisers, but was there ever a naval war in which such a risk was not present? War without risk would become a very attractive business. Any possible policy must represent a compromise with its own defects. I naturally take it that Sir Reginald Custance has in mind a pretty effective type of cruiser for all-round purposes; may I hazard that he would not go below a vessel of 6,000 tons or an armament of less than 6-inch guns? Such a vessel could deal with the 75 per cent of enemy effort against our sea communications which I have pictured quite as adequately as a much bigger type of cruiser.


It is seldom difficult to adduce concrete examples in support of any argument, and Admiral Henderson calls the experience of the Falklands to his aid. Here enemy big cruisers, temporarily dominating a great sea route, were crushed by our still bigger cruisers. I grant him all he claims for the strategy of the Falklands victory and for the material conditions which rendered that victory possible. I demur to the suggestion that the Falklands victory is an experience upon which to base the whole of our policy of the defense of sea communications. The employment of two of our biggest cruisers (battle cruisers, to be correct) sufficed to account for Von Spee's force. We must always have a certain proportion of vessels adequate to a function of this sort. But, as I understand Admiral Henderson's argument, we should only build all big cruisers, since he thinks small control cruisers would prove a disastrous illusion in the event of war. So they would if they had nothing else but enemy big cruisers to deal with. But take the other side of the picture. The *Emden* was a very small cruiser, armed with nothing heavier than 4.1-inch guns. I think it fair to question whether she would have done one scrap more mischief than she did had she been a very big, powerful vessel. In this case the *Sydney* might not have been able to destroy her, and she might have remained at large longer than she did.

The loose cruiser is, indeed, a very difficult problem. To argue that over 40 warships were engaged in hunting down the *Emden* and that, therefore, if 10 *Emdens* were at large they would want 400 ships to hunt them down is to state the problem, I will not say in terms of absurdity, but in terms of impracticability. In the days of the *Emden* there was no sort of attempt at the control and protection of our ocean trade. The raider simply went on the regular sea highway, and there was the stream of traffic. The aircraft is an ugly adjunct to the loose

cruiser, because it gives her such a wide area of observation. In spite of this I think it is possible to minimize the activities of the loose cruiser on blue water by widely diverting shipping and suffering the inconvenience of delay. I have been much impressed by the unanimity with which the few people who have flown the Atlantic have referred to the emptiness of this "crowded ocean." They have probably gone but a few leagues outside of the regular "lanes" and seen nothing but an interminable waste of waters.

No doubt we should suffer very considerably from loose cruisers. That we could hope effectively to deal with this situation by building fewer and larger cruisers is, I think, a mistaken idea. It is ludicrous to suppose that we could defend 85,000 miles of trade routes for 85,000 miles. It is equally ludicrous to suppose that an enemy could menace the trade routes in similar terms. If we followed Admiral Henderson's doctrine, and devoted our control-cruiser policy to dealing with the enemy big ships, he might be compelled to restrict his loose-cruiser activities. What then would happen? He would concentrate more strenuously upon a submarine policy, and we should be handicapped in dealing with a situation in which numbers essentially count. It seems to me that if we admit that a loose-cruiser policy could only represent about 25 per cent of enemy effort against our trade it is of more vital importance for us to be in a position to deal with the other 75 per cent of enemy effort, and that this is a conclusion which justifies the view of Admiral Sir Reginald Custance.





BRITISH NAVY AND AIR ESTIMATES, 1930

THE NAVY ESTIMATES

The British Navy estimates for the year 1930, issued on March 6, 1930, contain the following information:

Five vessels of the program of 1928 have been canceled, viz: Two cruisers (10,000-ton type, with 8-inch guns); two submarines; one submarine depot ship.

Twelve vessels of the program of 1929 have been canceled, viz: Two cruisers (one of 10,000-ton type, with 8-inch guns); four torpedo-boat destroyers; three submarines; two sloops; one net layer and target-towing vessel.

In addition, the decision whether the three remaining submarines of the 1929 program are to be proceeded with has been deferred until after the London Naval Conference has been concluded.

In 1929, 99,800 officers and men were provided for, but the number is expected to fall to 98,800 by April 1, 1930. As a result of further economies, the number now proposed to be reached by April 1, 1930, is 97,050, which is expected to fall to 94,000 by April 1, 1931.

NOTES ON MATTERS OF GENERAL INTEREST IN THE FLEET

Distribution of the fleet.—During the past year, in order to relieve the berthing congestion at Malta, four ships of the Queen Elizabeth class have been transferred from the Mediterranean to home waters. The battleships and battle cruisers comprising the Mediterranean and Atlantic Fleets during 1930 will thus be—

Mediterranean Fleet.—One ship of the Queen Elizabeth class; five ships of the Royal Sovereign class.

Atlantic Fleet.—Two ships of the Nelson class; two ships of the Queen Elizabeth class; three battle cruisers, the *Renown*, *Repulse*, and *Tiger*.

For reasons of economy two ships of the Iron Duke class, which under the title of the third battle squadron, have formed part of the Atlantic Fleet and provided seagoing training for boys, have now been stationed at Portland for training purposes, where they form an independent command.

Aircraft carriers.—H. M. S. *Glorious* will be ready for service in the spring and will join the Mediterranean Fleet early in the summer in place of H. M. S. *Courageous*, which will join the Atlantic Fleet

after undergoing refit. H. M. S. *Argus* will reduce to reserve status on the return of the Atlantic Fleet from the spring cruise.

Cruisers.—The four 10,000-ton cruisers of the London class have been completed and now form the first cruiser squadron in the Mediterranean.

During 1930 the *Norfolk*, *Dorsetshire*, and *York* will be completed and join the second cruiser squadron in the Atlantic Fleet.

Destroyers.—The first complete flotilla of postwar design will join the Mediterranean Fleet shortly and relieve one of the flotillas now serving, which will return to England and be placed in reserve.

Submarines.—Twelve new submarines and the depot ship *Medway* will depart for China early in the year, replacing the L class, which have returned from that station.

Naval air work.—Good progress continues to be made in all branches of naval air work, and the amount of flying carried out by embarked aircraft shows steady increase. Eighty-two naval officers are now employed as observers, and six more are under training. One hundred and twenty naval and Royal Marine officers are serving as pilots in the fleet air arm, and 29 are under training for this duty. Of this total, 25 officers have been appointed for a period of general service, on the conclusion of which they will resume flying duties.

Wireless telegraphy and signal development.—The working of naval shore wireless-telegraphy stations on both long and short wave has been improved during the past year by reorganization and the use of recent developments in technique.

MATÉRIEL

New construction.—The revised 1929 new program consists of one 6-inch-gun cruiser, 1 leader, 4 destroyers, and 4 sloops.

Reconstruction and repairs.—The reconstruction of the *Glorious* as an aircraft carrier is practically finished. She is the last of the three large aircraft carriers converted from cruisers, the other two being the *Furious* and *Courageous*.

The *Valiant*, which was taken in hand for bulging in March, 1929, is expected to complete in the autumn. The *Barham*, the last ship of the class to be bulged, will then be taken in hand.

The *Hood* and the *Benbow* commenced large refits in June and September, 1929, respectively.

Dockyard administration.—The process of putting into force at Portsmouth Dockyard the changes recommended by Mr. R. S. Hilton's committee on the financial system of the dockyards will be completed by April 1 next. Amongst the changes introduced are the system of mustering the workmen by time clock instead of metal ticket

(the time-clock card being completed with the detail of the calculation of each workman's wages and given to him for information) and a scheme of recording and classifying on costs under centers, from which analyses are prepared for each period of four weeks for the purposes of instituting a closer control by the management over indirect expenditure. It is proposed gradually to extend these systems to other establishments and to start upon their introduction at Devonport Dockyard in 1930.

In accordance with the policy of the Government toward its industrial employees, one week's annual leave with pay has been granted to all work people in the Royal Dockyards and other Admiralty establishments in this country who have been in the Admiralty service for a year, and the number of paid holidays each year has been increased from four to five.

The reduction in the amount of work allocated to the dockyards owing to the cancellation of part of the shipbuilding program would, in the ordinary course, have involved considerable discharges. To such extent, however, as is practicable, measures have been taken to minimize compulsory discharges. A certain amount of work which has not ordinarily been assigned to the dockyards, but which they are well able to perform, has been found for them. Established work people wishing to leave the service have been permitted to retire with the pension or gratuity earned by service. The amount of overtime worked in the dockyards has been severely restricted. Payment by results has been to some extent reduced.

Self-maintenance scheme (H. M. ships).—The scheme introduced in 1927 in the Mediterranean Fleet for increasing the degree of self-maintenance by ships' personnel, in conjunction with an extension of the periods between dockyard refits, continues to work very satisfactorily. A similar scheme was extended later to the Atlantic Fleet. A modified scheme of self-maintenance has been authorized for trial in the cruisers of the America and West Indies squadron.

Miscellaneous.—Catapults for the launching of aircraft from ships are now installed in several vessels, including the *Resolution* and *Frobisher*, but finality in design has not yet been reached. Several types are being exhaustively tried out, and experimental work is being pursued, active liaison being maintained with the Air Ministry. The trials are being carried out from the *Ark Royal*.

Considerable progress has been made in modernizing the anti-aircraft defense of the fleet and in installing a new system of fire control for the antiaircraft guns.

Improved fuel economy and reliability continue to be sought after in all new machinery designs. Increasing use is being made of electrically driven auxiliary machinery, with the object of securing

improvement in economy when working at reduced powers. Useful work, which should prove the means of further improving fuel combustion afloat besides improving operation and reducing wear and tear of furnace fittings, has been carried out during the year at the Haslar Liquid Fuel Experimental Works.

At the Admiralty engineering laboratory the development of heavy-oil engines for naval purposes has proceeded steadily. The design and construction of an advanced experimental type of high-speed Diesel engine, in which an attempt is being made to reduce the machinery weight considerably in comparison with existing practice, are also in progress there. In addition, data required for existing designs have been determined experimentally as required, and metallurgical investigations have been carried out to meet the requirements of the service.

Trials of oil obtained from the low-temperature carbonization of coal have been carried out at the Liquid Fuel Experimental Works at Haslar and in a destroyer, and arrangements are being made to obtain supplies of similar oils from the principal firms in this country with a view to carrying out further trials.

Progress in the development of the use of pulverized fuel is being closely watched.

Trials have also been continued at Haslar and elsewhere with plants for eliminating the oil fuel from the water in the mixtures arising from fuel-tank washings and other contaminated supplies. Improvements in these processes have been made and several plants are now available for service.

Trials have been carried out ashore and afloat with various new materials and corrosion-resisting processes.

In conjunction with British electrical-cable manufacturers a comprehensive research and investigation into the construction of various types of electric cables have been undertaken, resulting in the production of cables of greater durability, which should ultimately effect considerable economy in maintenance.

Successful experiments have been carried out with a submarine-escape apparatus which offers a greatly improved means of individual escape to the crew of a sunken submarine, and the provision of this apparatus to each officer and man in submarines is in progress. Other experiments have been made and are continuing with the object of improving measures of submarine salvage in case of necessity, an important feature being that means have been found to enable divers to reach much greater depths than had previously been considered practicable.

THE AIR ESTIMATES

The British air estimates for 1930, issued on March 8, 1930, contain the following information:

The net total of air estimates which Parliament is asked to vote for the coming year is £17,850,000, which is £890,000 in excess of the 1929 estimate. Generally speaking, these estimates allow for a broad continuity of air policy, and in particular the outlines of the home-defense scheme are not prejudiced. For the coming year, however, the approved increases of the Royal Air Force are of small dimensions and are designed to demonstrate once more the earnest desire of His Majesty's Government to avoid disastrous competition in air armaments. With this end in view the consolidation of the existing units of the home-defense force will be the main feature of the 1930 program, and the only new unit to be added to that force will be one nonregular squadron. We shall thus have a breathing space in which to watch the development of the new spirit which informs pacific international instruments, such as the treaty for the renunciation of war and the optional clause.

STRENGTH AND DISTRIBUTION OF THE ROYAL AIR FORCE

The present strength of the Royal Air Force is approximately 70 regular squadrons (including the equivalent of 12 squadrons in the fleet air arm) and 12 nonregular squadrons. During the financial year 1929 the formation of 1 regular squadron for home defense, 1 squadron of flying boats, and 4 cadre or auxiliary squadrons has been put in hand; in addition, a torpedo-bomber squadron, which was originally formed as an experimental unit, has now been re-organized for normal service duties with a view to its proceeding to Singapore in the course of the current year.

In 1930 one flying-boat squadron and one cadre squadron will be formed, but the chief developments will be in advancing the equipment of the force as a whole and of the units which were formed in 1929 in particular. Two new flights which were contained in the fleet air arm program for 1929 and were deferred are now included in the program for 1930.

OPERATIONAL ACTIVITIES DURING THE PAST YEAR

The chief areas of activity have been in the Middle East and the Sudan. The disturbances which broke out in Palestine were by their nature primarily a problem for ground forces, and 50 troops were transported by air from Egypt to Jerusalem within seven hours of the requirements being notified. Active reconnaissance and other

protective duties were also carried out by aircraft of No. 14 Squadron, assisted by squadrons from Egypt, while for a short time reinforcements were provided by aircraft disembarked from H. M. S. *Courageous*.

In the Sudan air action was enlisted to repel a rising by a section of the Nuba Tribe, which had organized armed resistance to Government. This intervention was entirely successful and enabled a force of infantry to occupy the enemy's position without casualties.

In the Aden Protectorate local unrest, which had manifested itself by interference with traffic and robbery of caravans, was quelled by air demonstrations and by the dropping of warnings.

A more serious situation arose toward the end of 1929 on the southern borders of Iraq. Two fighting tribes had made incursions into the territory following an unsuccessful rebellion against King Ibn Saud, and stubbornly refused either to return or to surrender to the British forces. In this case the threat of air action brought about the complete and unconditional surrender of the insurgents.

PERSONNEL

There has been an encouraging increase during 1929 in the number of applications for permanent commissions, both from the schools for cadetships at the Royal Air Force College, Cranwell, and from the universities for entry through the university commission scheme.

A revision has been made of the terms of enlistment of airmen. Aircraft apprentices and apprentice clerks who are entered at about the age of 16 for training to fill the technical and clerical trades, respectively, will, as heretofore, be recruited for 12 years' active list service, counting from the age of 18, with no reserve liability. The nonapprentice entrants, however, will in future be recruited for eight years' active list service with no reserve liability, instead of for varying terms with reserve liability. A proportion will, of course, be allowed to extend their active list service to 12 years and to re-engage to complete 24 years' service for pension. Those who are due for discharge after eight years' service will be invited, up to the numbers required in the several trades, to enter the reserve, and it is hoped by this means more effectively and economically to regulate the size of the reserve in accordance with requirements from time to time.

TRAINING

In 1930 for the first time the Armament and Gunnery School is giving an advanced course in armament for officers designed to fill posts requiring the highest degree of knowledge in this subject. A start has also been made with the training in torpedo work of officers required for this duty in the flying-boat and other squadrons

allocated for coastwise defense. By courtesy of the Admiralty this first course is being given in naval establishments.

AUXILIARY AND RESERVE FORCES

The development of these forces has proceeded satisfactorily, the increase in the total being accounted for chiefly by the expansion of cadre and Auxiliary Air Force squadrons. The strength of existing units has, generally speaking, been well maintained.

Excellent results continue to be achieved by the university air squadrons at Oxford and Cambridge, and the fact that solo flying in term time is now permitted to members of these squadrons at both universities has had the beneficial effect of enabling tuition in flying to be maintained without a break both in and out of term. Both squadrons have been maintained at full strength since their formation, and it is estimated that, on an average, each vacancy is applied for twice over.

TECHNICAL EQUIPMENT

By the autumn of 1930, 43 regular squadrons at home and abroad, 1 cadre squadron, and 5 auxiliary squadrons should be equipped with slotted-wing aircraft. These units represent about half of the types (and much more than half the number) of aircraft in use by the Royal Air Force; the remainder include certain aircraft of obsolescent design and the fighter and flying-boat classes. Experiments are now being made with the fitting of slotted wings to both these latter.

Additional provision has been made for torpedoes owing to the increasing amount of training carried out with this weapon.

RESEARCH AND TECHNICAL DEVELOPMENT

Provision is made for commencing the construction of a large wind tunnel capable of containing the fuselage, engine, and air screw of an airplane at full scale. This will enable certain work to be carried out, such as the determination of the most efficient engine cowling and air-screw dimensions, which can not be performed in any other way; and it will also permit accurate measurement of the air resistance of actual airplanes under laboratory conditions instead of by repeated flights in the air, with a large economy of time and effort.

The variable-density wind tunnel at the National Physical Laboratory, which was put in hand in 1929, is expected to be completed and running during the coming year.

The program of new aircraft comprises eight experimental types, service and civil.

The investigations of the aeronautical research committee into the problems of noise in aircraft have reached a stage at which the volume of sound has been accurately computed, and its chief sources, the engine and the tip of the air screw at high speeds, are now being attacked simultaneously with an investigation of the best design and materials for cabin construction from the standpoint of sound insulation.

As an example of the progress made in engine design, it is interesting to observe that the Rolls-Royce engine, with which the Schneider trophy was won, developed 1,900 horsepower for a weight of 1,526 pounds (0.8 pound per horsepower), whereas the engine of the winning machine in the 1927 contest developed 900 horsepower for a weight of 928 pounds (1.03 pounds per horsepower).

AIRSHIPS

The two airships, R-100 and R-101, were both completed in the autumn of 1929.

It may be of interest to compare what has been done up to date with the program laid down in 1924. The object of that program was to build two airships of nearly double the size of any airship hitherto constructed in this country, with a much higher standard of passenger accommodation than had ever been attempted before and with designs which were to be based strictly on the results of scientific investigations and were to comply with definite and exacting safety requirements. It was also proposed that both airships should, as the last stage in their trials, carry out an extended voyage—for example, a flight to India and back via Egypt. The trials of *R-100* and *R-101* have shown that a satisfactory measure of success has been achieved, despite delays inevitable in a field so novel and experimental. Both airships have proved to be thoroughly stable and easy to control. *R-101* rode at the mast through weather of exceptional severity (including gales with gusts up to 83 miles per hour) for a month on end, whilst *R-100* has attained a full speed of about 81 miles per hour, which is as high as that of the *Graf Zeppelin*, an airship of much smaller diameter. On the other hand, owing to the unexpected difficulties met with in the development of the heavy-oil engine, *R-100* has had to be equipped with petrol engines, and is therefore not suitable for navigation in the Tropics. *R-101* is equipped with the first engine operating on the compression ignition system with heavy oil which has ever been used as a power unit in aircraft in this country, but owing to difficulties in the development of a variable-pitch air screw, one of the airship's five engines has to be reserved for going astern, whilst the weight of the power system as a whole is, and must, for the time being, remain consider-

ably higher than was estimated. Moreover, as has been explained to Parliament from time to time, lift has been deliberately sacrificed in order to incorporate certain other experimental features in this airship. The result has been that her useful load fell below that originally proposed. It has therefore been decided, in accordance with the policy of "safety first," which has been followed throughout, that an additional bay should be inserted in *R-101* before a flight to India and back is undertaken, even though such a flight might well have been carried through successfully without this addition.

Provision is accordingly made in these estimates for this alteration to *R-101*—the construction of the necessary spares for both airships and the carrying out of a program of oversea flights between now and April, 1931. The intention is that *R-100* should in the later spring or summer carry out a flight or flights to the tower erected at Montreal by His Majesty's Government in Canada and during the winter should operate between Cardington and Ismailia. *R-101* is to fly to India and back in the autumn, and will then be used for experimental operation on the Indian route. This is essential in order to obtain the data necessary before a commercial service on this route can be established.

Provision is also made for another important item—namely, the development of a mechanical means of moving large airships into and out of their sheds. It is very desirable, if airships are to be used for long-distance services, that it should be possible for them to be moved in and out of their sheds as and when necessary without the large number of men required at present.

CIVIL AVIATION

The increase in the vote for civil aviation this year is mainly due to the provision for an additional net payment of £60,000 to Imperial Airways (Ltd.), in respect of the inauguration of the Imperial air service to South Africa. The section of the service between Alexandria and Mwanza (Tanganyika) should commence in the autumn of 1930 and the through service to Cape Town in the spring of 1931.

Three hundred and forty-eight thousand pounds has been included for subsidies to Imperial Airways (Ltd.), in respect of their existing European services and of the service to Karachi. The latter service has now been extended to Delhi by the Government of India under arrangement with the company.

Provision is made for portable flood lights at five aerodromes in the Middle East and in the Persian Gulf in order to enable flights by night to be regularly undertaken on the England-India air route.

METEOROLOGY

The expenditure on meteorology shows an increase of £11,500 on that for the previous year, allowance being made for an anticipated increase in receipts of £2,000.

Additional staff is required for the meteorological service in the Middle East to enable it to provide the more extended service of forecasts and reports made necessary by the establishment of the Indian air mail.

During the past few years there has been great difficulty in meeting the ever-increasing demands for the services of trained meteorologists which arise from the development of aviation at home and abroad as well as from other causes. To meet these demands there is not available in the country any source of supply outside the government service. It has therefore been decided to add six posts to the junior grade, where men who have taken the requisite university courses in physics or mathematics will receive systematic training in meteorology. There will thus be available a small reserve from which officers can be drawn to carry on responsible work arising from new developments.

A further increase arises from the establishment of a port meteorological office in the London Docks to deal more effectively with the requirements of observing ships based on that port. London ships already form a large proportion of the 500 vessels that compose the fleet of voluntary observing ships, and it is anticipated that the proposals made in the International Convention for the Safety of Life at Sea will result in that proportion becoming larger.



NAVAL ARMAMENT LIMITATION

FIRST LORD OF BRITISH ADMIRALTY MAKES STATEMENT ON AGREEMENT
REACHED AT LONDON CONFERENCE

Speaking at Sheffield, England, on the evening of April 11, 1930, Mr. A. V. Alexander outlined certain details and economies which are expected to be effected as a result of agreements reached at the London Naval Conference; the press report of his speech follows:

We have now arrived at a complete agreement with Japan and the United States on all classes of ships, and what is most important to remember, upon very much lower figures than the last proposals made at the Geneva conference in 1927. Taking cruisers, destroyers, and submarines together, the total figure for the British Empire and the United States proposed in 1927 was 590,000 tons each plus 25 per cent overage, which gave a total of 737,500 tons. This total was to remain in force until 1936.

The agreement at which we have now arrived with the United States for these categories of auxiliary ships sets a total of 541,700 tons by 1936, which shows a reduction on the Geneva proposals of 195,800 tons. The United States figure now is 526,200, as compared with 737,500 tons proposed at Geneva, showing a reduction of 211,300 tons, the small extra reduction in the total tonnage of the United States being in recognition of the larger number of heavy 8-inch gun cruisers which the United States may build.

JAPANESE FIGURES CUT

The Japanese figure proposed at Geneva was 481,250 tons for auxiliary ships, while the provisional figure agreed on at this conference is 367,050, showing a saving of 114,200 tons.

In auxiliary tonnage, therefore, the reductions of the three powers combined, as compared with the proposals on which the conference broke down in 1927, is no less than 521,300 tons—a very significant indication of the progress of public opinion in the direction of disarmament.

Moreover, the powers have mutually agreed to waive, pending a further conference in 1935, their rights under the Washington treaty to build any capital ships provided in that treaty to be laid down from 1931 onward.

It has also been agreed by the three powers to reduce the numbers of their capital ships to the minimum figures provided for in the Washington treaty with the least possible delay instead of waiting until 1936. Another great achievement has been the rectification in this agreement of a world tendency to build the largest size of cruiser permitted under the Washington treaty. When we entered into office last year, the American authorized program in 8-inch 10,000-ton ships was not less than 23.

BRITAIN HAD BUILT 17

In the case of Britain there were seventeen 8-inch ships built and building and one further ship authorized in a total program which if carried to its completion, would have been not less than 20, and as Japan might quite naturally have been expected to build pro rata even these figures might not have been the maximum. To-day we have definitely agreed among the three powers that the maximum number of ships in this class shall be 18, 15, and 12, respectively.

The greatest value in the measure of agreement already secured is to be found in the helpful moral effect created in support of a general move for disarmament and peace, but it must not be overlooked that there also are valuable economic advantages. It is not possible yet to give a completely accurate estimate. Nevertheless, some important deductions can already be arrived at.

Laying down new and replacement of battleships under the Washington Treaty would have involved an expenditure of at least £50,000,000 up to 1936. In addition we shall make a saving of over £4,000,000 in maintenance charges.

Under the agreement we have now arrived at the maximum number of cruisers will be 50, and while it is not possible at present to estimate accurately the savings which will thus be effected, it is certain that they will be many millions.

DESTROYERS REDUCED

In the case of destroyers, we have at the present moment 190,000 tons built, building, and authorized, while the agreement arrived at is 150,000 tons. This reduction in tonnage may not affect materially the construction costs, in view of the age of a substantial proportion of our present destroyer fleet, but if conditions are such that a reduction in tonnage can be carried into effect substantial savings in maintenance will accrue.

In the case of submarines, fixing the maximum tonnage in agreement with the United States at 52,700 tons will mean that, compared to the program which would otherwise have had to be followed, we shall save in construction up to 1936 about £3,400,000 and in maintenance about £450,000, a total saving in this category of £3,850,000.

It is safe to estimate, therefore, that up to 1936 the saving involved by the 3-power treaty will be at least between £60,000,000 and £70,000,000.

I think that in such circumstances it is futile for anyone to describe the conference as a failure. Rather is it to be described as a tremendous advance on the road to disarmament.

This agreement marks a most valuable development in cementing our friendship with the United States of America, a friendship which of itself alone must have a profound effect upon the peace of the world.

PRESIDENT HOOVER'S STATEMENT ON LONDON NAVAL CONFERENCE

Following is a press report of the statement issued, on April 11, 1930, by President Hoover expressing his pleasure at the results obtained in the London conference and in which he analyzes certain savings effected:

I am greatly pleased with the final success of the naval arms conference in London, and I have to-day telegraphed the delegation expressing my approval of the result achieved and my admiration for their patience and determination in an arduous and difficult negotiation. And I wish to congratulate the delegations of the other governments for their constructive and courageous action.

The most vital feature of its great accomplishments for peace is the final abolition of competition in naval arms between the greatest naval powers and the burial of the fears and suspicions which have been the constant product of rival warship construction. It will be recalled that prior to the 3-power conference at Geneva in 1927, at which France and Italy felt obliged to decline attendance, there was naval competition in all craft except battleships, with constant international friction. Consequently, upon the failure of that conference the rival expansion received even new impulses and resulted in increased international suspicion and ill-will through the world and a steady drift to greatly increased navies.

When I initiated this negotiation it was after a critical examination of the experience before and after the Geneva conference and a determination that the causes of that failure could be met with adequate preparation and preliminary negotiation. At that time we realized, and have realized at all times since, that the particular setting of the continental nations, because of the inseparable importance of land armies in their bearing upon naval strength, together with the political agreements that reduction of such arms implied, made a 5-power agreement extremely improbable, as the United States could not involve itself in such agreements.

PRAISES FRANCE AND ITALY

The French and Italian Governments have shown the utmost goodwill in this conference in the endeavor, in the interest of world peace, to support the present solution just as far as they could do so, and they have joined the present agreement in important provisions.

It is difficult to estimate the precise reduction in war-craft tonnage which have been brought about by this agreement because of the factor of normal replacement and additional tonnage authorized but not yet constructed. Nine battleships are to be scrapped of a total of about 230,000 tons, the replacement of 16 or 17 others to be deferred for six years.

The various navies in the agreement are to reduce some 300,000 to 400,000 tons of other categories in the next few years as they become obsolete—but some categories of some of them must be increased in order to come up to the standards set. The net balance will be a very considerable decrease in the world's actual tonnage as it stands to-day.

The economic importance of the accomplishment can best be measured in terms of the situation developed at the Geneva conference. That conference broke down upon the feeling of the British representatives that it was necessary for them to create or maintain a navy of a total of nearly 1,500,000 tons. Their pre-war navy was much larger than this. The American delegates were not able to agree to this basis, as it implied such a huge amount of naval construction in the United States that it was hopeless to expect public support and it meant a perpetually inferior navy.

SUMMARIZES BRITISH SUGGESTIONS

The British suggestions at Geneva were approximately:

1. Maintain the battleships as provided in the Washington treaty, of which the British battle fleet then stood at 606,000 tons and the American fleet at 525,000 tons.

2. Aircraft carriers as in the Washington treaty at a maximum of 135,000 tons.

3. A cruiser tonnage of about 450,000 tons in 70 cruisers.

4. Although actual figures were little discussed, the conversations appear to have indicated a destroyer tonnage of about 225,000 to 250,000 tons and a submarine tonnage of about 75,000 tons, or a total fleet of nearly 1,500,000 tons on a British basis, or 1,420,000 on an American basis owing to our inferiority in battleship tonnage through the Washington arms treaty.

If this fleet had been adopted as the basis of parity, it would have cost the United States somewhere, upon different calculations, from \$1,400,000,000 to \$1,750,000,000 for replacements and new construction to attain it, with greatly increased maintenance costs.

REDUCTION OF 20 SHIPS

The present agreement calls for parity of American and British fleets of approximately—

1. A battleship basis to each of us of about 460,000 tons, but no replacements for the next six years on either side.

2. Aircraft carriers as in the Washington arms treaty at a maximum of 135,000 tons.

3. A cruiser basis of 339,000 tons if the United States exercises the option of the same types as Great Britain, but if the United States builds a larger ratio of the large cruisers our tonnage would be 323,000. It represents a reduction of about 20 ships in the basis of the British cruiser fleet.

4. Destroyer tonnage of 150,000 tons and a submarine tonnage of 52,700 tons each.

That is a total fleet basis of roughly about 1,136,000 tons (slightly less if we build the larger cruisers), as compared with about 1,700,000-ton British basis of the Geneva conference, and shows a reduction of about 364,000 tons below that basis to the United States and Great Britain and a proportional reduction to Japan. In bringing this about, the British scrap four 8-inch gun cruisers and five battleships, while we scrap three battleships, thus bringing about parity in battleships, which was not attained in the Washington agreement.

The Japanese Navy under the proposed agreement will amount to something near 800,000 tons. These results are to be arrived at by scrapping, by obsolescence, and by construction in some categories prior to 1936, when a renewed conference is to take place.

SEES STIMULUS TO PROSPERITY

The cost to the United States of replacements and new construction during the next 6 years, until the further conference, will be (under various estimates) from \$550,000,000 to \$650,000,000, as compared to a sum, as I have said, of between \$1,400,000,000 to \$1,640,000,000 to attain parity on the Geneva basis. To this latter would need be added

the additional cost of maintenance and operating, which would make the saving upon the present basis as compared to the Geneva up to \$1,000,000,000 in the next six years.

The savings are not alone to the United States but to Great Britain and Japan as well. The total savings to the world are perhaps \$2,500,000,000 below the Geneva basis, to which the world was steadily drifting. This sum devoted to reproductive enterprise will be a great stimulus to world prosperity.

There are no political undertakings of any kind in the present treaty, except an agreement for the regulation of the conduct of submarines against merchant ships in time of war. The whole agreement is a great step in world peace and an assurance of American parity in naval strength.

SENATOR ROBINSON'S RADIO ADDRESS ON LONDON NAVAL TREATY

Following is the text of Senator Joseph T. Robinson's radio address on the London naval treaty, broadcasted from London, on April 20, 1930, and as released by the State Department:

The conference having concluded its work except for the formal ceremony of signing the treaty, it seems appropriate to summarize the results. No effort is in mind to speak from a technical viewpoint. The desire is to present in condensed form the principal features of the arrangement entered into with regard to the programs of the three chief naval powers.

OBJECTIVES

The prime objectives of our delegation have been—

1. To cooperate with other delegations in terminating naval competition by limiting all classes of warships;
2. To assure equality of naval strength for the United States with Great Britain;
3. To arrange a satisfactory relation between our Navy and that of the Japanese;
4. To bring about reductions in tonnage wherever practicable.

Let us consider the degree to which these objectives have been attained.

PARTIAL FAILURE OF 5-POWER PLAN

It is clear that as a 5-power enterprise there is not complete success. The importance of this is not to be minimized. Unquestionably it would have been more satisfactory to have a treaty defining the programs of France and Italy, as well as those of Great Britain, the United States, and Japan. The Italians insisted on parity with the navy of the strongest continental power, even though there is little likelihood that Italy would actually build up to French tonnage during the period of the treaty. The French refused this demand. France is carrying forward a naval-construction program materially increasing her tonnage in cruisers, submarine boats, and destroyers. She was not disposed to reduce these tonnages without new guaranties of security.

FAILURE TO INCORPORATE SANCTIONS

The various methods of creating new guaranties of security were amply discussed in the press while the negotiations were in progress. No delegation asked the United States to participate in any security pact. The American delegation made it plain that the United States would not join any consultative pact which could by implication be regarded as giving security. The French said that a mere consultative pact would not take 1 ton off their navy. The French and British tried to restate their security obligations as a basis for a reduction in French tonnage. This effort had to be linked with a settlement between France and Italy. It was the realization that this double settlement would have to be postponed that led to the conclusion of the conference on the present basis and the insertion of a contingent clause to which further reference will be made.

We took the position that fair limitation of armament is of itself a wholesome and effective measure of security, tending to promote international good will and pacific measures for adjustment of disputes where treaty relations are threatened or disturbed. Consultation is a logical and probably inevitable process; but agreements for consultation, unless carefully safeguarded, entered into in advance, in the opinion of many tend to the formation of alliances and to the assumption of responsibility for decisions, which might result in involvements which our people desire to avoid.

Efforts to negotiate a 5-power arrangement were continued—perhaps they were unduly prolonged—finally resulting in a postponement of conclusions between the European powers and participation by France and Italy in the provisions of the treaty except those relating to the limitation of tonnages. The provisions in which all five powers join, while less comprehensive than those entered into by the United States, Great Britain, and Japan, include the battleship holiday and the restriction on the use of submarines against merchant ships in time of war, which in themselves are achievements of magnitude and value.

With respect to the above-mentioned restriction on the use of submarines the five powers accept as rules of international law: (1) That submarines in action with regard to merchant ships must conform to the rules applicable to surface vessels.

(2) More definitely stated, save in case of persistent refusal to stop when duly summoned or of active resistance to visit or search, neither surface craft nor submarine may sink or render incapable of navigation a merchant ship without first safeguarding the passengers, crew, and ship's papers. It is further declared that placing passengers, crew, and ship's papers in the ship's boats is not a compliance with this rule unless safety is assured by sea and weather conditions, proximity to land, or the presence of another vessel to take them on board. The acceptance of these rules as international law may not prevent all abuses of the character denounced. Undoubtedly in time of war belligerents will be tempted to violate them. However great such temptations may prove, parties to future conflicts will be slow to challenge the resentment of mankind by ruthless destruction of merchant vessels, for such a course would invite results disastrous to the offender.

The limitations agreed to by the three powers are accompanied by a contingent clause which provides that if any one of the three feels its national security jeopardized by new naval construction of any power

whose auxiliary fleet has not been limited it may notify the others what increase it requires. The others may then make proportionate increases. This is in no sense a sanction; neither does it provide for consultation.

Of course it may be said in criticism that this clause permits a disturbance of the figures agreed to on the sole responsibility of either the United States, Great Britain, or Japan, and that if any one of the three adjudges it to be necessary to build in excess of the treaty program this will increase the building of the other two. But even if this should happen the relation of the fleets and the principles of limitation would still be maintained. It should also be remembered that the limitation of armaments must proceed only through the voluntary action of nations and that no power can arbitrarily impose on another restrictions of the means of defense without assuming more responsibility for its safety. It is of first importance that the limitation of armaments shall be regarded as increasing rather than diminishing the safety of peoples, and if emergencies, regarded as remote but nevertheless as possible, arise threatening immediate danger a people should be free to respond to the requirements of their situation. Otherwise the fate of nations must forever be bound up with the maintenance of large armaments and the imminence of war. This clause is based upon the good faith of the three nations, and it is inconceivable that it will be used except upon necessity. It leaves the responsibility of determining the requirements for national security where it belongs—namely, on the respective nations. A clause providing for consultation or mutual agreement might imply some measure of obligation of all who enter into it. Failure to bind ourselves to consult or mediate in no way impairs the right of the United States to consult and give advice and even tender good offices should the occasion justify, but we should be left free to act as the friend of both parties to a dispute or at least as impartial in all controversies which do not involve American rights or interest.

PROMINENT FEATURES OF 3-POWER AGREEMENT

This treaty vitally affects relations between the navies of Great Britain, Japan, and the United States in every category of war vessels.

BATTLESHIPS

The treaty contemplate two important changes to the Washington treaty adjustment regarding capital ships. Under the plan now in force prior to December 31, 1936, the United States would lay down 10, Great Britain 10, and Japan 6 new capital ships. Under the proposed London treaty no new ship of this class will be laid down.

In addition to the holiday the three powers will commence to scrap in this class prior to December 31, 1931, Great Britain, 5; United States, 3; Japan, 1.

Thus substantial parity between the United States and Great Britain will result following the close of 1931. Postponement of construction of the 10 ships referred to will probably contribute to a final permanent reduction in this category. It will certainly defer the expenditure by the United States of at least \$300,000,000 during the life of the treaty. The early scrapping agreed upon likewise will result in avoiding expenditure which otherwise would be required for repair, maintenance, and operation.

Our experts are of the unanimous opinion that these amendments to the battleship program will bring about actual parity between the United States and Great Britain in capital ships.

8-INCH CRUISERS

In the large cruiser class, carrying 8-inch guns, the United States will have 18 ships, with a tonnage of 180,000; Great Britain will have 15 ships, aggregating in tonnage 148,000; and Japan 12 ships, totaling 108,400 tons. The United States desired a considerable number of vessels having a long cruising radius, while Great Britain found a comparatively large number of the small type better adapted to her purposes. The superiority afforded the United States in these large cruisers constituted recognition to some extent of the difference in type of cruisers required for her purposes as compared with the British needs. Prolonged investigation of the subject led to the conclusion that no scientific basis exists for measuring the difference in value between large 8-inch-gun cruisers and vessels carrying 6-inch guns. To offset the American advantage of 33,200 tons in 8-inch-gun cruisers Great Britain has the right to employ in 6-inch-gun cruisers 48,700 tons more than the United States, making a net difference in the cruiser tonnage of the two powers of 15,500 in favor of Great Britain in cruisers of all classes.

It is not possible to say that this difference corresponds with mathematical accuracy to the superior value of the large cruisers which the United States has the right to possess over those allowed Great Britain.

Within certain ranges 6-inch guns are more effective than 8-inch guns. At great distances, however, the advantage clearly is in the ship carrying guns with the longest range. On the other hand, the smaller guns can be fired more rapidly and perhaps more accurately than the heavy 8-inch weapons. There can be no important advantage to either of the two powers because of this difference in 8-inch cruiser tonnage.

Moreover, it may be emphasized that the United States has the option to build exactly Great Britain's program and thereby produce a ton-for-ton parity between the two countries.

DESTROYERS

In the destroyer category very material reductions are made. The United States now has a tonnage considerably in excess of 200,000, but many of the ships are old and nothing like the present number is required. Great Britain and the United States will each have 150,000 tons in destroyers. The present Japanese fleet of 6-inch-gun cruisers is 98,415 tons. The treaty gives Japan 100,450 tons. The present Japanese destroyer fleet is 129,375 tons. In these two categories Japan will have 70 per cent of our fleet and 17,000 tons less than the present.

SUBMARINES

Finally, each of the three powers may have 52,700 tons in submarines. In the conference the United States and Great Britain sought to abolish warships of this class, but other powers were unwilling to do so, and limitation was resorted to at a relatively low tonnage.

The United States at the time of the conference was inferior in submarine tonnage to both Great Britain and Japan. Our inferiority in this class, as in the cruiser category, is attributable to our failure to build following the Washington conference. From the ratification of the Washington treaty until now the United States has neglected building not only in those classes in which a war surplus remained, but also in cruisers in which our Navy was deficient.

The total tonnage in all classes of auxiliary craft laid down by the United States during the years 1922 to 1930, inclusive, was 138,120. During that time Great Britain laid down 203,725 tons, Japan 242,771 tons, France 249,454 tons, and Italy 163,943 tons. It is apparent that in those years the United States had a much smaller building program than any of the other four powers.

Our war tonnage is now becoming obsolescent, and we are faced with the necessity of rebuilding much of the Navy. The treaty enables us to proceed with the task in an orderly manner and at a lower total tonnage than we have had in the past, in spite of the fact that we have built less than any other country represented at the conference.

This is the story of the treaty in figures as comprehensively related as found practicable within the proper limits of this address. There are other bases than that here employed for comparison, but it is believed that the one chosen for present purposes gives the clearest showing possible of what has been accomplished and some reasons for the programs incorporated in the treaty.



CURRENT ARTICLES OF PROFESSIONAL INTEREST

The Naval Conference of 1930. By Rear Admiral K. G. B. Dewar, R. N. (Nineteenth Century, March, 1930.)

The Packard-Diesel Aircraft Engine. By Edward P. Warner. (Aviation, April 5, 1930.)

The Mandate System in Germany's Lost Colonies. By Heinrich Schnee. (Current History, April, 1930.)

American Achievements in Haiti. By R. Nelson Fuller. (Current History, April, 1930.)



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British Naval Maneuvers, Spring 1930

BRITISH NAVAL MANEUVERS, SPRING 1930

The combined maneuvers of the British Atlantic and Mediterranean Fleets, consisting of about 100 ships, were held in the Mediterranean from March 8 to 18, 1930. The exercises comprised two main phases, each consuming, roughly, four days. The first was a major strategical problem, involving divided forces acting against a concentrated force, while the second was devoted to tactical exercises in handling all units of the fleets.

The Blue force (*Atlantic Fleet*) consisted of 4 battleships, 3 battle cruisers, 5 light cruisers, 2 aircraft carriers, 20 destroyers, 1 mine layer, 5 submarines, and vessels of the train.

The Red force (*Mediterranean Fleet*) consisted of 6 battleships, 9 light cruisers, 1 aircraft carrier, 36 destroyers, 4 submarines, and vessels of the train. Red thus was slightly inferior in capital ships and aircraft carriers but had the advantage in both cruisers and destroyers.

In order to economize fuel the initial dispositions of the forces were near their ports of departure. The Blue forces assembled at Pollensa Bay, Majorca, while the Red forces concentrated at Malta. The exercise speeds were reduced to approximately one-half of normal full speeds.

FIRST PHASE

General conditions of strategic problem.—The Tyrrhenian Sea was assumed to be land, and no passages existed for ships between the Balearic Islands or between the island of Iviza and the Spanish mainland.

The Red fleet has concentrated at its main base at Malta on account of the strained relations existing with Blue.

Blue has a detached force consisting of 3 battle cruisers (*Renown*, *Repulse*, and *Tiger*), 2 cruisers (*Hawkins* and *Frobisher*), 1 aircraft carrier (*Furious*), and a destroyer flotilla (*Wallace* and 8 destroyers) on a visit to a mythical port north of Corsica, while Blue's submarine force (*L-52*, *L-53*, *L-56*, *L-69*, *L-71*, and tender *Lucia*) is paying a friendly visit to an imaginary port about 300 miles to the westward of Malta, in a position to harass Red's communications to the westward.

On account of the strained relations, Blue has sent reinforcements (the Atlantic Fleet Battle Squadron) from England to her base at

Gibraltar, where they are supposed to have arrived on the afternoon of March 7. Red knows that they have arrived.

The Red admiralty, on hearing of the arrival of Blue's main fleet at Gibraltar, and realizing that his only hope of maintaining local command in the event of war is to defeat either the Blue main fleet or the Blue detached force before they can effect a junction, decides to strike a sudden blow before the two Blue groups have time to unite. The Red fleet has therefore been ordered to sea to take up its preliminary positions for war.

Each side has received special sealed instructions, which contain information as to the probable movements of the enemy. No hostilities are permitted before the outbreak of war, the precise time of which is unknown, but will be broadcast from Malta and Gibraltar after midnight March 9-10. In any case war will be declared before the Red fleet from Malta passes through the Blue submarine patrols 300 miles to the westward.

From midnight March 9-10 all ships will be darkened and will carry out war routine, with guns manned and ready. The aircraft on both sides will be up at dawn if weather is suitable. After sporadic fighting between cruisers and destroyers, the main fleets are expected to come into action during daylight on March 10, gunfire being simulated by training searchlights on the targets engaged and casualties being imposed on all ships according to the time spent under fire. No mines will be laid, mine fields being constructive. Conditions seem to indicate that any major fleet engagement is expected to take place in an area to the southeastward of the Balearic Islands, in the vicinity of the earliest possible junction point of the Blue forces.

OPERATIONS

The following account of the strategic problem, with extracts from the originals, is compiled from articles by press reporters, who witnessed the operations from vessels of the Blue and Red fleets.

The Red fleet sailed from Malta on March 8. The Blue main and detached forces sailed from Pollensa Bay, Majorca, on Sunday morning, March 9, and proceeded to the positions which they could have reached at 0400 March 10 had they actually sailed from Gibraltar and the port north of Corsica, respectively. On getting outside the bay the Blue fleet was divided. "The battle cruisers, an aircraft carrier, and some of the smaller craft hurried northward to their war station in the Gulf of Genoa. Our force, comprising *Nelson*, *Rodney*, *Barham*, *Malaya*, and *Argus*, 4 cruisers and 10 destroyers, set our course in the direction of Gibraltar for our war station. When the force going north and our force going south reach

our war stations we shall represent the split Blue forces trying to link up at a rendezvous somewhere between the south of Majorca and the North African coast. It is the task of the Red fleet to prevent that rendezvous by destroying one or the other of the Blue forces."

During the afternoon the destroyer *Wessen* left the formation and, proceeding about a mile away, carried out depth-charge practice.

The Blue commander in chief is in the *Nelson*, heading the column of battleships: "For nearly 12 hours we have now been steaming in procession—the battleships in line ahead, the aircraft carrier on our port beam, the destroyers and cruisers in three lines astern of us."

The next morning the following signal was received: "War will be declared at 7 a. m. to-day, Monday commence hostilities at that time." "The entire force had moved into 'line-ahead formation,'" the flagship *Nelson* leading. "By this time we were at our war station. Our scheme appeared to be that we should hover during daylight outside the radius of the enemy aircraft, and then, when darkness came, make a dash for the Blue rendezvous. And so all day we hung about off the North African coast."

A report was received that the submarine depot ship *Lucia*, trying to get to Pollensa Bay, was picked up by the Red cruiser *London* and declared sunk.

"In the meantime news was being picked up concerning hostilities in other parts, and various contact reports were being plotted on the chart. It began to look as though Red was going to concentrate on the destruction of our battle cruiser squadron, but even then we were not prepared to make a dash until cover of darkness. As the day wore on it became quite clear that the big battle would be between the Red fleet and our battle cruisers."

Shifting the scene to the Blue detached force, flagship *Renown*, accompanied by *Repulse*, *Tiger*, *Furious*, *Hawkins*, *Frobisher*, and the Fifth destroyer flotilla, we find that they have cruised without lights during the night and on Monday morning are "creeping southward from somewhere north of Corsica." Later on, "we are steaming at 14 knots in an effort to join the Blue commander in chief, who is bringing the main body of the Blue battle fleet from Gibraltar. We are still a long way apart and uncomfortably aware that the Red massed fleet will try to engage the Blue main body or ourselves before we unite at a secret rendezvous, when we could meet the enemy on equal terms. Since yesterday afternoon our submarines have been reporting movements of the Red fleet."

"We were congratulating ourselves that during the afternoon we might work around the Reds, when suddenly an enemy submarine

came to the surface 3 miles astern of us. We zigzagged, confident of having escaped."

The Red submarines had evidently made very effective contact with the Blue battle cruisers, for a few minutes later, at 1625, *Renown* was torpedoed by Red submarine *L-16*, which had pierced the destroyer screen undetected and came to the surface close aboard the flagship. "According to the rules in this war, a submarine emerges after firing torpedoes, and, obviously, we should have been holed."

With the torpedoing of *Renown* the admiral "decided to transfer his flag to *Repulse*. We lowered the cutter and the admiral and his staff were rowed by a dozen life-belted seamen to the destroyer *Vortigern*, which then got under way and raced off in pursuit of the *Repulse*, who was forging ahead."

It appears that upon learning that the Red submarines had made contact with the Blue detached force the Red rear admiral commanding destroyers, in *Cairo*, dashed northward with the whole of his four flotillas. "They harrassed and attacked the battle cruisers, and overhead aircraft added to the grim realities of battle. The *Tiger* had been torpedoed four times."

After being torpedoed, *Renown* made for Corsica, but a short while later was again attacked and sunk by enemy destroyers.

The air forces of both Blue and Red were used during that day. The Blue aircraft carrier "*Furious* signaled the safe return of 11 torpedo-dropping airplanes after a successful raid on *Warspite*," flagship of the Red commander in chief. Also, one machine from the Red aircraft carrier *Eagle* was lost; its engine having failed, the plane "alighted near the steamship *Heina*, who rescued the airmen."

Returning now to the Blue main body. While the battle cruisers were being heavily engaged by Red the Blue main body "steamed onward toward the rendezvous, but, from messages received, we knew that the battle cruiser squadron was being badly hammered and would probably be absent from the trysting place. In the meantime our force had been observing 'battle order' from shortly after dark. Not a light was visible. On deck the gun crews hung about their guns. We were ready for the enemy, but no enemy appeared. In fact, the enemy left us severely alone. Sufficient for his victory was the defeat of the battle cruiser squadron. Later in the evening activities were reduced to cruising stations. Finally, at 0200, March 11, hostilities ceased and the war was over," the maneuvers having extended over a period of 19 hours from zero hour.

Detailed accounts of the operations from Red sources are quite meager. One reporter on board *Warspite*, the Red flagship, in summarizing the results of the first phase of the maneuvers writes: "We have received about 860 signals, and we have achieved the exact results at which our commander aimed—that of preventing the junction of two powerful Blue squadrons and, most certainly, the crippling of one of them. The Blue battleships were without an adequate protection and scouting screen of cruisers and destroyers and were obliged to hang back, while the battle cruisers had their speed much reduced for the same reason. But *Repulse* and *Tiger* were still fighting when the exercises finished, thus again demonstrating the capacity of capital ships to take and inflict punishment. From the early forenoon of Monday the battle cruisers were dogged by our submarines and destroyers, with disastrous results. In fact, a special feature of the exercise has been the brilliant work of the submarines."

In commenting upon the lack of Blue cruisers another correspondent says: "Blue had no spare cruisers, which could have blinded the enemy, and, as of old in Nelson's time, the cry of admirals at sea is for cruisers, and still more cruisers."

Among the adjudged casualties during the first phase were:

Sunk: *Renown*, *Cairo*, *Lucia*, *L-71*, *Keppel*, and about 12 destroyers.

Damaged: *Warspite*, *Repulse*, *Tiger*, *Furious*, and several destroyers.

While making a reconnaissance flight en route from Gibraltar to Pollensa Bay a Fairey 3-seater airplane from the aircraft carrier *Furious* crashed into the sea and quickly sank. The crew was rescued unhurt.

During the first phase the battleship *Royal Sovereign* strained some plates and had to return to Malta for repairs.

After completion of the strategical problem, the Atlantic and Mediterranean Fleets assembled under the command of the commander in chief of the Mediterranean Fleet in *Warspite* and proceeded to anchorage in the Bay of Palma, on the western side of Majorca.

The annual sailing races between the two fleets were held during the stay in Bay of Palma. Results: Mediterranean Fleet, 1,209 points; Atlantic Fleet, 968 points.

COMPOSITION OF FORCES (FIRST PHASE)

Blue (Atlantic Fleet)	Red (Mediterranean Fleet)
Second Battle Squadron (Vice Admiral A. E. M. Chatfield, commander in chief, <i>Nelson</i> , flag): <i>Nelson</i> . <i>Rodney</i> . <i>Barham</i> (flag, Rear Admiral Plunkett Ernle-Drax, second in command). <i>Malaya</i> .	First Battle Squadron (Admiral F. L. Field, commander in chief, <i>Warspite</i> , flag): <i>Warspite</i> . <i>Revenge</i> (flag, Vice Admiral W. A. H. Kelly, second in command). <i>Resolution</i> . <i>Royal Oak</i> . <i>Royal Sovereign</i> . <i>Ramilles</i> .
Battle Cruiser Squadron: <i>Renown</i> (flag, Rear Admiral A. D. P. R. Pound). <i>Repulse</i> . <i>Tiger</i> .	First Cruiser Squadrons: <i>London</i> (flag, Vice Admiral H. W. Parker). <i>Sussex</i> . <i>Devonshire</i> . <i>Shropshire</i> .
Second Cruiser Squadron: <i>Hawkins</i> (flag, Rear Admiral M. R. Best). <i>Frobisher</i> . <i>Comus</i> . <i>Canterbury</i> . Aircraft carriers <i>Furious</i> and <i>Argus</i> , accompanied by 2 destroyers. <i>Adventure</i> (mine layer).	Third Cruiser Squadron: <i>Curacoa</i> (flag, Rear Admiral A. J. Davis). <i>Caledon</i> . <i>Calypso</i> . <i>Curlew</i> . <i>Eagle</i> (aircraft carrier).
Destroyer flotillas (Capt. R. C. DalGLISH, <i>Centaur</i> , flag)— Fifth Destroyer Flotilla— <i>Wallace</i> and 8 destroyers. Sixth Destroyer Flotilla— <i>Campbell</i> and 8 destroyers.	Destroyer flotillas (Rear Admiral A. B. S. Dutton, <i>Cairo</i> , flag): First Destroyer Flotilla— <i>Mackay</i> and 8 destroyers. Second Destroyer Flotilla— <i>Stuart</i> and 8 destroyers. Third Destroyer Flotilla— <i>Keppel</i> and 7 destroyers. Fourth Destroyer Flotilla— <i>Broke</i> and 8 destroyers.
Second Submarine Flotilla: 5 submarines—L-52, L-53, L-56, L-69, and L-71. <i>Lucia</i> (submarine tender).	First Submarine Flotilla— <i>Douglas</i> and 4 submarines. <i>Cyclops</i> (submarine tender).
Train: <i>Snapdragon</i> (target-towing ship)—1 tug and fleet fuel ships.	Train: <i>Perthshire</i> (supply ship) and fleet fuel ships.

SECOND PHASE

The combined Mediterranean and Atlantic Fleets left their anchorage in Palma Bay at 0900, Saturday, March 15, to begin the second phase of the maneuvers, which consisted of three separate tactical exercises.

FIRST TACTICAL EXERCISE

The first tactical exercise, conducted during the forenoon of March 15, consisted of the destroyer flotillas making coordinated attacks upon the capital ships.

Some idea of the fleet's sortie from Palma Bay for beginning the first exercise is obtained from a press report, which states that "the six destroyer flotillas, followed by the two cruiser squadrons, were the first to leave Palma, followed by the battleships led by *Warspite*." Heading into a stiff northwest wind, the "destroyers then

increased speed and quickly disappeared over the horizon to take up their positions for the combined attacks."

During the destroyer attacks the battleships in column, led by *Warspite*, were maneuvered apparently to avoid imaginary torpedoes, as none were fired owing to rough water.

SECOND TACTICAL EXERCISE

The second tactical exercise, which was held on the afternoon of March 15, consisted of maneuvers between two engaged fleets, supported by aircraft.

The Blue fleet consisted of 9 battleships, 3 battle cruisers, *Cairo*, and 11 destroyers, and aircraft carriers *Eagle* and *Furious*.

The Red fleet was represented by the First, Second, and Third Cruiser Squadrons (as battleships), *Centaur* and 36 destroyers, aircraft carrier *Argus*, together with one flight from *Eagle* and two flights from *Furious*.

A press report describes the Blue cruising formation: "Far ahead were the battle cruisers, followed by the destroyers, as though throwing a screen across the battleships, which steamed in three lines. In the center was *Warspite*, *Barham*, and *Malaya*; on the port beam, *Nelson*, *Rodney*, and *Resolution*; and on the starboard beam, *Revenge*, *Ramillies*, and *Royal Oak*."

The air activities are also described: "Scores of aircraft were taking off from the decks of the aircraft carriers. As they rose in the air they formed into their squadrons." The Blue squadrons, climbing high, disappeared and soon reported contact with the Red battleships. The Red air attack on the Blue fleet is then described: "Suddenly, as though appearing from nowhere, the bombing and torpedo squadrons hurled themselves against our battle line. They tore downward at a dizzy speed, flattened out as they neared the waves, and rushed toward the Blue battleships. The pilots used camera guns to record the shooting. Having delivered imaginary blows, they climbed again to safety, turned back into squadron formation, and disappeared."

As in the destroyer attacks during the forenoon, the water "was too rough actually to fire the dummy-headed torpedoes, but one got a version of the part which aircraft will play in a modern battle." No mention is made in available reports of drilling with the ships' anti-aircraft batteries during the air attack.

Shortly after, "the two fleets were within gun range and our gunners laid their guns on the starboard bow in the direction of the Red fleet. The naked eye could not see the enemy, but the spotting planes above us reported his movements."

"*Renown*, followed by *Repulse* and *Tiger*, continued to lead the line. *Cairo* followed with the destroyers, and then the nine battleships in three columns, headed by *Nelson*, *Warspite*, and *Revenge*."

At 1410 *Renown* signaled "Enemy in sight." The range closed rapidly and the two fleets were soon heavily engaged: "The Blue battleships were deployed so as to bring the full weight of their armament against the enemy." Searchlights were manned to represent gunfire. "It is interesting to note how effective is the silver-gray paint of the Mediterranean Fleet against the skyline in this part of the world. In the glare of the searchlight at night they show up almost clear white."

"At about 1500 from a few miles away the Red destroyers turned and attacked the Blue battleships astern of us. The divisions of enemy destroyers plunged at high speed through the water. The battle cruisers, however, were again rather remote from the scene of action. Periodically we fired a blank, indicating that we had opened fire on a fresh target."

The Blue commander in chief then ordered his destroyers to attack: "It was a 'battle by numbers,' the perfect cohesion of the battle fleet's counter measures when it sent in its own destroyers, under a barrage from the big ships, at the critical moment."

Cease fire sounded at 1530. The two fleets again assembled and returned to anchorage at Palma Bay the same evening.

THIRD TACTICAL EXERCISE

The combined fleets left the Bay of Palma on Sunday, March 16, and separated to begin the third tactical exercise en route to Gibraltar, the Atlantic Fleet, augmented by the Second Destroyer Flotilla, being designated as Blue, while the Mediterranean Fleet again was Red.

General conditions of exercise.—Blue is attempting to force its way out of the Mediterranean into the Atlantic to join reinforcements there against the opposition of Red. The two fleets are of approximately equal strength, but Red has a strong force of submarines, accompanied by the aircraft carrier *Eagle*. This Red air and submarine force is lying in wait for Blue at a point about 100 miles to the eastward of Gibraltar, and knows that Blue is approaching the Straits. The Red submarine force includes *K-2*, six *L-class* boats, and the *M-2*, which vessel now carries a seaplane instead of the 12-inch gun with which she was formerly equipped.

Blue knows that submarines, accompanied by air patrols, are likely to be met, and Blue air patrols will be kept out in full force if weather permits.

The Red submarines knew the position of the Blue fleet at 0600, March 17, and that Blue at that time was steering a course out of the regular Gibraltar traffic lane.

Red wants to prevent Blue from breaking through the Straits, but the latter is quite ready and eager to fight. Following the probable Red submarine attack, the two fleets are scheduled to meet sometime before dark on March 17, and an action will follow in which neither side will gain a great advantage, but in which both commanders in chief will be killed. "After dark," the order states, "the action will be broken off, but not before commanders in chief have been killed, so that when the fleets resume the action in the morning the leadership will have devolved on to other admirals in both cases." Destroyer attacks will be conducted during the night, and star shells and searchlights will be used. Casualties will be imposed as they occur. By daylight the junior admirals left in command (who they will be depends on the results of the night fighting) will be required to reorganize and reform the depleted squadrons. Blue will continue to attempt to break out of the Mediterranean and Red will try to stop him until the umpires render a decision as to the victor, when the exercise will be called off.

The submarine attack

Starting from a position south of Cartagena, Spain, on Monday morning, March 17, the Blue fleet was endeavoring to reach the Atlantic, while the Red fleet, starting from the neighborhood of Oran, Algiers, strove to intercept them. "As daylight came the aircraft carriers *Furious* and *Argus*, pushing into the wind, tossed aloft the Blue air patrols." The Blue cruising formation is described: "Far ahead the cruisers formed the first screen. Then came the screens of destroyers guarding the heavy ships. Aircraft from our carriers patrolled the areas ahead and on both beams. The weather favored the submarines. The sunshine was not bright enough to make detection easy, and there was a ruffling of the water's surface by the northwest wind."

At 0900 a warning signal was made that Red submarines were in the area. The Blue light surface forces and not the air patrols had made the discovery: "It was from the vanguard, consisting of the *Hawkins*, *Frobisher*, *Comus*, *Canterbury*, and *Centaur*, that the news reached us of the enemy's movements. Cruisers had located the enemy by undersea detection devices."

The first submarine was sighted on the starboard beam of *Malaya*. "Soon thereafter the *Malaya* was hit by a torpedo just under the bridge, the dummy head squashing itself in the impact against the ship. The submarine's first blow had got home, but we were fairly easy prey, in that we were steering a straight course and at only moderate speed. We steamed on with our squadron, and in a few

minutes the submarine which had done the damage came to the surface and made her signals." A report indicates that the submarine evidently had attempted to pierce the screen: "There was a dramatic moment when the destroyer *Velox* was seen proceeding full speed astern to avoid colliding with *L-56*, which had come to the surface straight ahead and claimed to have torpedoed the *Malaya*. A plane then swooped down on her, and a destroyer turned to help the submarine recover her torpedo."

"It was over an hour before we got the next attack. Again the warning signal told everyone that a submarine was on the starboard beam. We watched for the telltale torpedo wake, but none appeared. After a quarter of an hour the submarine appeared. We had overrun her attack. But others were to come. At 1130 our flagship, *Nelson*, at the head of the line, was hit by a torpedo fired on the starboard bow by *L-16*. *L-16*, which has done yeoman service in these exercises, sank the *Renown* on March 10."

The submarine engagement ended at 1300. The submarines proceeded to Gibraltar and the two fleets began to make preparations for the next stage of the exercise, a fleet engagement followed by torpedo attacks during the coming night.

Main fleet engagement

As expected, the two fleets made contact just before sunset. "The battle cruisers which had been steaming ahead then retired on the Blue battleships. Although not visible from the deck, the two fleets brought their guns to bear, opening imaginary fire at about 15 to 16 miles range. 'I am engaging you' was signaled from one fleet to another by flash signal. The Red fleet was on Blue's port hand."

The Blue destroyers then laid a smoke screen to cover a change of course of the Blue fleet. "After a little while, our destroyers, steaming at full speed, shut us out from the enemy with a dense smoke screen, and we at once altered course in an effort to get away and make the Straits in time to get through to the Atlantic."

Shifting position to *Warspite*, we obtain an account of the engagement from a reporter on the Red flagship: "There is a seaplane shot from the decks of the *Resolution*. The machine rose swift and effortless, yet the pilot and observers must place their heads in a special upholstered headrest to escape the risk of breaking their necks by the shocks of the departure. Almost immediately afterwards there is an attack by Blue naval aircraft upon the flagship *Revenge*. There were the *Rodney* and the *Nelson* firing on us from 20 miles away. You could see the distant flashing of their searchlights, figuring as guns, and then the *Malaya* and the *Barham*, behind them, following suit. But our line held its peace for nearly half an hour. Then, when the range grew more effective, it opened fire in its turn. The destroyers

of the Atlantic Fleet had laid a smoke screen across the horizon. You saw nothing but this and the sudden dim glows as the enemy battleships fired from behind. 'It was very much like this at Jutland. We saw no more than this,' said an officer who was present at that battle. Our bridge was doomed. We knew it. A figurative shell was due at any moment and presently it came, killing the commander in chief and all his staff. But the commander in chief's flag, despite his demise, was left flying at the masthead in accordance with the regulations from the old days, which enjoin that though a British admiral may fall his flag must not, lest the crew be disheartened or the enemy be encouraged. By another naval custom we passed a signal of one word to the vice admiral's ship, indicating the admiral's death. Before battle a small group of such words is chosen in cold blood by the staffs of the different admirals. 'Sunset' was the word that the admiral's staff signaled to the vice admiral in *Revenge*. Our destroyers then left us to prepare a night attack on the Blue fleet. To escape such an attack on our own fleet, the vice admiral turned it away at a southwestern angle and in single line ahead."

Blue "had the *Rodney* and *Repulse* damaged theoretically, while in the early proceedings the *Renown* became the fleet flagship, as our Blue commander in chief had been killed."

It was a clear, starry night for conducting the destroyer attacks. "Star shells far away told where the Red destroyers were engaging the enemy. During the night we were to lose every Red destroyer but one. But in return the *Tiger* was put out of action and the *Nelson* was hit four times."

The Blue destroyers did not attempt to attack the Red battle fleet during the night, as they were assigned to screening stations about the Blue battle fleet.

Dawn found both fleets out of sight of each other. The Red fleet, with the advantage of two knots in speed, achieved its object during the night—that of passing ahead of the Blue fleet: "Early in the morning the Red vice admiral turned to the eastward toward the Blue fleet, for we were now between Blue and Gibraltar. At 0710 Blue torpedo bombers flew over us and forced us to alter our course. While we were doing this others dropped torpedoes. We were hit and our speed slowed down, but this did not matter. We had the master position and the less-damaged ships and guns."

The two fleets soon came together again: "The engagement opened at short range—something like 15,000 yards—and very soon the *Renown* had been put out of action and *Barham* and *Malaya* damaged. The Red torpedo planes also attacked the Blue battleships, but no torpedoes were fired. At 0800, at the height of the engagement, the Blue destroyers who throughout the night had been oc-

cupping screening positions on the port beam raced ahead and swung around to offer protection when the Red fleet was sighted so near on the starboard bow; but in point of fact their effort would have had little effect, as they would have been immediate casualties."

Before 0900 the engagement was declared at an end and the fleets steamed for Gibraltar, "there to analyze and discuss the exercises."

Referring to that feature of the exercise which required the commanders in chief of the two fleets to be killed, the Naval and Military Record (London) contains the following golden editorial comment:

The idea of "killing" the two commanders in chief of the combined fleets taking part in the recent Mediterranean exercises at the very outset of the "war" was essentially a sound one. Responsibility for the development of the operations devolved upon the vice admirals second in command. These officers would be thoroughly conversant with the plans of their "dead" chiefs, but they would also be free to exercise their own initiative. It was a standing complaint against the late Admiral Sir Arthur Wilson that nobody ever knew "what he was at." He was generally acclaimed the most brilliant naval strategist of his era, and probably was. But he kept his brilliance so severely to himself that his staff officers used to say that nobody ever knew his objective or his designed methods of attaining it, so that had he been put out of action at any stage of the maneuvers the operations would have been brought to a standstill for the simple reason that nobody would have known what to do next.

Obviously, this would be a fatal principle in war. The "strong silent man" may be sound so long as he remains sound, but he can not count upon such a principle in war. If he is knocked out his strength is finished and the mischief of his silence begins. Nelson called all his captains together and disclosed his plans before going into action. The result of Trafalgar was assured before Nelson was killed, but had he been shot down at the very beginning of the battle Collingwood would have had in his mind's eye the prearranged evolutions which brought victory. Modern war is much too big and much too complicated to admit of "the human enigma."

The commander in chief must always remain the directing brain, but, as far as it is possible for him to foresee the course of his strategical or tactical schemes, he must take his senior officers completely into his confidence. How can subordinate leaders successfully contribute to the fulfilment of intentions of which they know nothing? The game of follow my leader not only has its limitations but it takes for granted that the leader will be in his place to follow throughout.



JAPANESE NAVAL AIR MANEUVERS, 1929

The most extensive air maneuvers yet held by the Japanese Navy began on September 23, 1929. In preparation for the maneuver the air force of the Yokosuka air station was augmented by 3 reconnaissance (type 14) landplanes and 6 pursuit (type 10) landplanes from Omura; 4 reconnaissance (type 14) seaplanes and 2 (F type 1925) patrol planes from Sasebo; and 8 reconnaissance (type 14) seaplanes from Kasumigaura. The Omura and Sasebo planes took off from their respective stations at about 0700 September 19. The Omura pursuit planes stopped at Hiroshima for fuel, while all the Sasebo planes stopped at Fukae (near Kobe). After refueling, all planes proceeded to Yokosuka. One of the F-type planes was delayed at Fukae, but proceeded to Yokosuka later. The three type 14 land reconnaissance planes from Omura made a nonstop flight to Yokosuka. All planes, including those from Kasumigaura, had arrived at Yokosuka air station by 1700 September 19. The distance by air from Omura and Sasebo to Yokosuka is approximately 590 miles, and all planes from those two stations had arrived at Yokosuka after an elapse of about 10 hours. Concentration of planes on Yokosuka is shown in the sketch.

ASSUMPTIONS AND OBJECTIVE

The maneuver was based on the following assumptions:

1. A powerful (Blue) striking force, having seized the Bonin Islands as an advanced base, is advancing northward with the object of delivering a strong air attack on Yokosuka and the Tokyo-Yokohama industrial district.

2. The Japanese naval air force (Red), concentrated at Yokosuka and using Hachio-Jima as an advanced base, has been intrusted with the mission of preventing the Blue aircraft from getting home their attacks and of defeating the Blue air force by attacking and destroying the Blue aircraft carriers (*Akagi*, *Hosho*, and *Notoro*).

The maneuvers were divided into two separate phases: (a) A daylight attack and (b) a night attack, both based on the above assumptions.

THE DAYLIGHT ATTACK

Upon receipt of the signal to start the maneuver, at 1300 September 23, the Red defense forces promptly sent up several squadrons

of planes for patrolling the defensive area. At about 1430 Blue air forces consisting of 12 light bombing planes, guarded by pursuit planes, were discovered close to Yokosuka. These Blue planes, flying at an altitude of about 1,600 feet, succeeded in dropping bombs, doing minor damage to the air station and naval station at Yokosuka before they were driven off by the 14 Red pursuit planes. At about 1600 a Red reconnaissance plane reported by radio the sighting of Blue carriers *Akagi* and *Hosho* off the islands of Izu. Upon receipt of this report a strong Red bombing squadron immediately took the air at Yokosuka and was able to deliver an attack on the carriers with such effect that both ships were declared sunk. Shortly afterwards the *Notoro* was discovered off the Izu Peninsula and was soon sunk by bombs. At 2340 September 23 this phase of the maneuver was declared at an end.

THE NIGHT ATTACK

All forces were now declared to be intact as at the start of the maneuver. At 0200 September 24 the signal was given to begin the second phase of the maneuvers. Upon receipt of the signal the Red defense forces immediately organized an air patrol extending 60 miles to seaward from Yokosuka. In spite of this patrol, three of the Blue light bombers were enabled to deliver an attack on Yokosuka air station under cover of darkness before finally being driven off.

Just at dawn a squadron of nine Blue planes were discovered over the Boso Peninsula, heading for Tokyo. The Red planes immediately gave battle. While this battle was in progress another squadron of nine Blue planes, flying very high, appeared over Yokosuka and succeeded in dropping bombs with considerable effect before being chased off. At 0700 the order to end the maneuver was given.

COMMENT

From the above it would appear that the daylight attack was completely unsuccessful and that the Red defense forces fully attained all their objectives in preventing any serious attack by Blue and in finally destroying all Blue aircraft carriers.

In the night attack, however, the Blue attacking forces enjoyed some measure of success in that, despite all of Red's defense preparations, a fairly effective attack was delivered by Blue on Yokosuka, while the Blue carriers were unmolested.

It is of special interest to note that during the entire maneuvers there was not a single accident and no forced landings, thus denoting a very creditable amount of skill on the part of Japanese naval aviators in both day and night combat flying operations.

The flight of the Sasebo and Omura planes to Yokosuka on the 19th also is indicative of the facility with which all units of the Japanese Naval Air Force may be concentrated at any one of their major air stations.

COMPOSITION OF FORCES

BLUE (ATTACKING FORCE)

Rear Admiral S. Takahashi, commanding.

Aircraft carriers: *Akagi*, *Hosho*, and *Notoro*.

Fourth Destroyer Division: *Hakaze*, *Akikaze*, *Tachikaze*, and *Hokaze*.

Planes carried on aircraft carriers of attacking force composed attacking force :

Pursuit planes (type 10)_____	16
Reconnaissance planes (type 13)_____	32
<hr/>	
Total_____	48

RED (DEFENSE FORCES)

Rear Admiral Konoe, commanding.

Seventh Destroyer Division: *Sakaki*, *Sugi*, *Kashiwa*, and *Matsu*.

Antiaircraft shore batteries, shore defense corps, and all planes based on Yokosuka air station, as follows:

Pursuit (landplanes, type 10)_____	14
Torpedo and bombing (landplanes, type 13)_____	11
Reconnaissance (seaplanes, type 14)_____	20
Type 15 F patrol planes (flying boats, type 15 F)_____	6
<hr/>	
Total_____	51

Chief umpire, Vice Admiral Yamamoto (commander in chief, Yokosuka Naval Station).



THE LONDON NAVAL TREATY OF 1930

(WITH SOME O. N. I. INTERPRETATIVE NOTES)

The President of the United States of America, the President of the French Republic, His Majesty the King of Great Britain, Ireland, and the British Dominions Beyond the Seas, Emperor of India, His Majesty the King of Italy, and His Majesty the Emperor of Japan,

Desiring to prevent the dangers and reduce the burdens inherent in competitive armaments; and

Desiring to carry forward the work begun by the Washington naval conference and to facilitate the progressive realization of general limitation and reduction of armaments,

Have resolved to conclude a treaty for the limitation and reduction of naval armament, and have accordingly appointed as their plenipotentiaries:

TEXT OF TREATY

PART I

ARTICLE I

The high contracting parties agree not to exercise their rights to lay down the keels of capital ship replacement tonnage during the years 1931-1936, inclusive, as provided in Chapter II, Part 3, of the Treaty for the Limitation of Naval Armament signed between them at Washington on the sixth of February, 1922, and referred to in the present treaty as the Washington Treaty.

This provision is without prejudice to the disposition relating to the replacement of ships accidentally lost or destroyed contained in Chapter II, Part 3, Section I, Paragraph (c) of the said treaty.

France and Italy may, however, build the replacement tonnage which they were entitled to lay down in 1927 and 1929 in accordance with the provisions of the said treaty.

(O. N. I. Note: France and Italy were scheduled under Washington Treaty to lay down 35,000 tons each in 1927 and 35,000 tons each in 1929. Hence each may lay down 70,000 tons of battleships, the number depending on the individual displacement.

Heretofore France and Italy have not shown much interest in capital ships. France not only has failed to lay down ships scheduled but also failed to replace the battleship "France," which was lost in 1922 in Quiberon Bay; Italy has not only failed to lay down replacement tonnage scheduled but has prematurely scrapped the "Dante Alighieri," and scrapped instead of reconditioning the "Leonardo Da Vinci.")

ARTICLE II

1. The United States, the United Kingdom of Great Britain and Northern Ireland, and Japan shall dispose of the following capital ships as provided in this article:

United States: *Florida*, *Utah*, *Arkansas*, or *Wyoming*;

United Kingdom: *Benbow*, *Iron Duke*, *Marlborough*, *Emperor of India*, *Tiger*;

Japan: *Hiyei*.

(a) Subject to the provisions of subparagraph (b), the above ships, unless converted to target use exclusively in accordance with Chapter II, Part 2, Paragraph II (c), of the Washington Treaty, shall be scrapped in the following manner:

One of the ships to be scrapped by the United States, and two of those to be scrapped by the United Kingdom, shall be rendered unfit for warlike service, in accordance with Chapter II, Part 2, Paragraph III (b), of the Washington Treaty, within twelve months from the coming into force of the present treaty. These ships shall be finally scrapped, in accordance with Paragraph II (a) or (b) of the said Part 2, within twenty-four months from the said coming into force. In the case of the second of the ships to be scrapped by the United States, and of the third and fourth of the ships to be scrapped by United Kingdom, the said periods shall be eighteen and thirty months respectively from the coming into force of the present treaty.

(O. N. J. Note: The effect of this clause is that 12 months from date of ratification of Treaty, United States renders unfit for warlike service 1 Battleship, Great Britain 2; 18 months from date of ratification United States renders unfit 1 more and Great Britain 2 more. Six months after having been rendered unfit for further warlike purposes, vessels must be finally scrapped. The Washington treaty permits the United States to retain only one capital ship for target use.)

(b) Of the ships to be disposed of under this article, the following may be retained for training purposes:

By the United States: *Arkansas* or *Wyoming*.

By the United Kingdom: *Iron Duke*.

By Japan: *Hiyei*.

These ships shall be reduced to the condition prescribed in Section V of Annex II to Part II of the present treaty. The work of reducing these vessels to the required condition shall begin, in the case of the United States and the United Kingdom, within twelve months, and in the case of Japan within eighteen months from the coming into force of the present treaty; the work shall be com-

pleted within six months of the expiration of the above-mentioned periods.

(O. N. I. Note: Requires that 18 months after final ratification of treaty battleships retained as training ships must have completed the following: Removal of all but three turrets, revolving parts of barbette machinery for operating turrets, conning tower, side armor, torpedo tubes, boilers in excess of that required for 18 knots, and all ammunition except target practice ammunition for the guns remaining on board.)

Any of these ships which are not retained for training purposes shall be rendered unfit for warlike service within eighteen months, and finally scrapped within thirty months, of the coming into force of the present treaty.

2. Subject to any disposal of capital ships which might be necessitated, in accordance with the Washington Treaty, by the building by France or Italy of the replacement tonnage referred to in Article I of the present treaty, all existing capital ships mentioned in Chapter II, Part 3, Section II, of the Washington Treaty and not designated above to be disposed of may be retained during the term of the present treaty.

3. The right of replacement is not lost by delay in laying down replacement tonnage, and the old vessel may be retained until replaced even though due for scrapping under Chapter II, Part 3, Section II, of the Washington Treaty.

(O. N. I. Note: This clause clears up the question as to whether or not the failure to lay down a replacement ship in the year scheduled prevented her being laid down some time later.)

ARTICLE III

One. For the purpose of the Washington Treaty, the definition of an aircraft carrier given in Chapter II, Part 4, of the said treaty is hereby replaced by the following definition:

The expression "aircraft carrier" includes any surface vessel of war, whatever its displacement, designed for the specific and exclusive purpose of carrying aircraft and so constructed that aircraft can be launched therefrom and landed thereon.

(O. N. I. Note: This clause limits aircraft carriers less than 10,000 tons displacement and causes them to be included in the present aircraft carrier tonnage allowance, i. e., 135,000 tons for U. S. and Great Britain and 81,000 tons for Japan.)

Two. The fitting of a landing-on or flying-off platform or deck on a capital ship, cruiser, or destroyer, provided such vessel was not designed or adapted exclusively as an aircraft carrier, shall not

cause any vessel so fitted to be charged against or classified in the category of aircraft carriers.

(O. N. I. Note: This clause permits landing-on platforms to be placed on cruisers and destroyers and capital ships, except that next clause prohibits placing them on existing capital ships. France and Italy can place them on their new capital ships if and when built. Paragraph 5 of Art. XVI, Annex III, prevents United States, Great Britain, and Japan from equipping over 25% of their cruiser tonnage with landing-on platforms.)

Three. No capital ship in existence on the 1st April, 1930, shall be fitted with a landing-on platform or deck.

ARTICLE IV

One. No aircraft carrier of 10,000 tons (10,160 metric tons) or less standard displacement mounting a gun above 6.1 inch (155 mm.) calibre shall be acquired by, or constructed by, or for, any of the high contracting parties.

(O. N. I. Note: This clause prohibits mounting of gun greater than 6.1 inch on aircraft carriers less than 10,000 tons, built for United States, British Empire, Japan, France, or Italy.)

Two. As from the coming into force of the present treaty in respect of all the high contracting parties, no aircraft carrier of 10,000 tons (10,160 metric tons) or less standard displacement mounting a gun above 6.1 inch (155 mm.) shall be constructed within the jurisdiction of any of the high contracting parties.

(O. N. I. Note: This clause places same restriction on aircraft carriers less than 10,000 tons built by United States, British Empire, Japan, France, or Italy for other minor powers.)

ARTICLE V

An aircraft carrier must not be designed and constructed for carrying a more powerful armament than that authorized by Article IX or Article X of the Washington Treaty, or by Article IV of the present treaty, as the case may be.

Wherever in the said Articles IX and X the calibre of 6.0 inches (152 mm.) is mentioned, the calibre of 6.1 inches (155 mm.) is substituted therefor.

(O. N. I. Note: Aircraft carriers over 10,000 tons displacement may mount guns of a maximum calibre of 8". The maximum number of 8" guns which can be mounted is 8 on aircraft carriers over 27,000 tons, 10 on an aircraft carrier from 10,000 to 27,000

Aircraft carriers under 10,000 tons displacement may mount guns of a maximum calibre of 6.1 inch. The number of such guns which may be mounted is unlimited.)

PART II

ARTICLE VI

One. The rules for determining standard displacement prescribed in Chapter 2, Part 4, of the Washington Treaty shall apply to all surface vessels of war of each of the high contracting parties.

Two. The standard displacement of a submarine is the surface displacement of the vessel complete (exclusive of the water in non-watertight structure) fully manned, engined, and equipped ready for sea, including all armament and ammunition, equipment, outfit, provisions for crew, miscellaneous stores, and implements of every description that are intended to be carried in war, but without fuel, lubricating oil, fresh water, or ballast water of any kind on board.

(O. N. I. Note: This definition was proposed by Admiral Long at Geneva in 1927 because of the difficulty of applying the Washington Treaty definition of standard displacements to submarines. The principal difference is that the standard displacement of a submarine excludes all fresh water and lubricating oil, whereas under Washington Treaty definition part of this would be included.)

Three. Each naval combatant vessel shall be rated at its displacement tonnage when in the standard condition. The word "ton," except in the expression "metric tons," shall be understood to be the ton of 2,240 pounds (1,016 kilos).

ARTICLE VII

1. No submarine, the standard displacement of which exceeds 2,000 tons (2,032 metric tons) or with a gun above 5.1 inch (130 mm.) calibre shall be acquired by or constructed by or for any of the high contracting parties.

(O. N. I. Note: Prohibits future submarines to exceed 2,000 tons or to mount a gun greater than 5.1 inch, with exception noted below.)

2. Each of the high contracting parties may, however, retain, build, or acquire a maximum number of three submarines of a standard displacement not exceeding 2,800 tons (2,845 metric tons); these submarines may carry guns not above 6.1 inches (155 mm.) calibre. Within this number, France may retain one unit, already launched, of 2,880 tons (2,926 metric tons), with guns the calibre of which is 8 inches (203 mm.).

-(O. N. I. Note: This clause inserted to allow retention by United States of "V-4," "V-5," "V-6," by Great Britain "X-1," and by France of the "Robert Surcouf," and allows any of the powers to

build, or acquire, three if they so desire. It is doubtful considering the low limit on total tonnage if Great Britain, United States or Japan would want to tie 7,400 tons in three boats.)

3. The high contracting parties may retain the submarines which they possessed on the 1st April, 1930, having a standard displacement not in excess of 2,000 tons (2,032 metric tons), and armed with guns above 5.1 inches (130 mm.) calibre.

(O. N. I. Note: This clause inserted to cover certain French submarines now built less than 2,000 tons, but which have a 5.9" gun. These boats are ex-German. Also 8 Japanese submarines with a 5.5" (14 cm.) gun.)

4. As from the coming into force of the present treaty in respect of all the high contracting parties, no submarine the standard displacement of which exceeds 2,000 tons (2,032 metric tons) or with a gun above 5.1 inches (130 mm.) calibre shall be constructed within the jurisdiction of any of the high contracting parties, except as provided in Paragraph 2 of this Article.

(O. N. I. Note: Prevents building for nonsignatory countries by United States, British Empire, Japan, France, and Italy.)

ARTICLE VIII

Subject to any special agreements which may submit them to limitation, the following vessels are exempt from limitation:

(a) Naval surface combatant vessels of 600 tons (610 metric tons) standard displacement and under.

(b) Naval surface combatant vessels exceeding 600 tons (610 metric tons), but not exceeding 2,000 tons (2,032 metric tons) standard displacement provided they have none of the following characteristics:

- (1) Mount a gun above 6.1 inches (155 mm.) calibre.
- (2) Mount more than four guns above 3 inches (76 mm.) calibre.
- (3) Are designed or fitted to launch torpedoes.
- (4) Are designed for a speed greater than twenty knots.

(O. N. I. Note: This clause catches Coast Guard Cruising Cutters certain Sloops, Gunboats, etc.)

(c) Naval surface vessels not specifically built as fighting ships which are employed on fleet duties or as troop transports or in some other way than as fighting ships, provided they have none of the following characteristics:

- (1) Mount a gun above 6.1 inches (155 mm.) calibre.
- (2) Mount more than four guns above three-inch (76 mm.) calibre.
- (3) Are designed or fitted to launch torpedoes.
- (4) Are designed for a speed greater than twenty knots.

- (5) Are protected by armour plate.
- (6) Are designed or fitted to launch mines.
- (7) Are fitted to receive aircraft on board from the air.
- (8) Mount more than one aircraft-launching apparatus on the centre line; or two, one on each broadside.
- (9) If fitted with any means of launching aircraft into the air, are designed or adapted to operate at sea more than three aircraft.

(O. N. I. Note: This in general covers auxiliaries and non-combatant vessels. There are in existence certain vessels which do not conform in all respects to the conditions laid down in the clause or the one above, nor do they fall in the limited categories. These vessels have been covered by name in Annex III. Vessels there listed may be replaced, but if they are they must be of such characteristics that they will fall in one of the limited categories or will have the characteristics of one of the exempt classes. Japan, however, is allowed to build two mine-layers of 5,000 tons displacement provided they do not mount more than four 6.1-inch guns, are not fitted to launch torpedoes and do not have a speed greater than 20 knots. See Article XII, par. Three.)

ARTICLE IX

The rules as to replacement contained in Annex I to this Part II are applicable to vessels of war not exceeding ten thousand tons (ten thousand one hundred and sixty metric tons) standard displacement, with the exception of aircraft carriers, whose replacement is governed by the provisions of the Washington Treaty.

ARTICLE X

Within one month after the date of laying down and the date of completion, respectively, of each vessel of war, other than capital ships, aircraft carriers, and the vessels exempt from limitation under Article VIII, laid down or completed by or for them after the coming into force of the present treaty, the high contracting parties shall communicate to each of the other high contracting parties the information detailed below:

- (a) The date of laying the keel and the following particulars:
 - The classification of the vessel;
 - Standard displacement in tons and metric tons;
 - The principal dimensions, namely, length at water line, extreme beam at or below water line;
 - Mean draft at standard displacement;
 - The calibre of the largest gun.
- (b) The date of completion, together with the foregoing particulars relating to the vessel at that date.

(O. N. I. Note: This clause inserted to have notification of official date of completion, and because at times there is some change in char-

acteristics while ship is under construction, also the displacement as completed varies from the designed displacement due to difference between estimated and actual weights, etc.)

The information to be given in the case of capital ships and aircraft carriers is governed by the Washington treaty.

ARTICLE XI

Subject to the provisions of Article II of the present treaty, the rules for disposal contained in Annex II to this Part II shall be applied to all vessels of war to be disposed of under the said treaty, and to aircraft carriers as defined in Article III.

ARTICLE XII

One. Subject to any supplementary agreements which may modify as between the high contracting parties concerned, the lists in Annex III of this Part II, the special vessels shown therein may be retained and their tonnage shall not be included in the tonnage subject to limitation.

Two. Any other vessel constructed, adapted, or acquired to serve the purposes for which these special vessels are retained shall be charged against the tonnage of the appropriate combatant category, according to the characteristics of the vessel, unless such vessel conforms to the characteristics of vessels exempt from limitation under Article VIII.

Three. Japan may, however, replace the mine layers *Aso* and *Tokiwa* by two new mine layers before 31st December, 1936. The standard displacement of each of the new vessels shall not exceed five thousand tons (five thousand and eighty metric tons); their speed shall not exceed twenty knots, and their other characteristics shall conform to the provisions of paragraph (b) of Article VIII. The new vessels shall be regarded as special vessels and their tonnage shall not be chargeable to the tonnage of any combatant category. The *Aso* and *Tokiwa* shall be disposed of in accordance with Section I or II of Annex II to this Part II, on completion of the replacement vessels.

Four. The *Asama*, *Yakumo*, *Izumo*, *Iwate*, and *Kasuga* shall be disposed of as stated in Section I or II of Annex II to this Part II, when the first three vessels of the *Kuma* class have been replaced by new vessels. These three vessels of the *Kuma* class shall be reduced to the condition prescribed in Section V, subparagraph (b) 2 of Annex II to this Part II, and are to be used for training ships, and their tonnage shall not thereafter be included in the tonnage subject to limitation.

(O. N. I. Note: The "Asama," "Yakumo," "Izumo," "Iwate," and "Kasuga" are old cruisers used as training ships (26-31 years old).

Two of this class will be completed by 1936.

The three "Kumas" must have all torpedo tubes removed, half the boilers removed, one-half the guns removed, all aviation facilities removed, and Japan undertakes that they shall not be used for any combatant purposes. Characteristics of "Kuma" class: laid down in 1918-19, completed 1920-21, displacement 5,100 tons, speed 33 knots, 7-5.5 guns.)

ARTICLE XIII

Existing ships of various types which, prior to the 1st April, 1930, have been used as stationary training establishments or hulks, may be retained in a nonseagoing condition.

(O. N. I. Note: Covers "Hartford," etc.)

ANNEX I

RULES FOR REPLACEMENT

SECTION I

Except as provided in Section 3 of this Annex and Part III of the present treaty, a vessel shall not be replaced before it becomes "over age." A vessel shall be deemed to be "over age" when the following number of years have elapsed since the date of its completion:

(a) For a surface vessel exceeding 3,000 tons (3,048 metric tons) but not exceeding 10,000 tons (10,160 metric tons) standard displacement:

- (i) If laid down before the first January, 1920, 16 years.
- (ii) If laid down after the 31st December, 1919, 20 years.

(O. N. I. Note: Effect of this clause is that all British 6" gun cruisers built have life of 16 years, including "Emerald" and "Enterprise," United States—"Omaha" and "Milwaukee" have life of 16 years; 11 of the 21 Japanese 6" gun cruisers have a life of 16 years under this clause, and one, the "Yubari" of 2,890 tons (less than 3,000 tons) has a life of 16 years under next clause. British "Hawkins," "Frobisher," "Effingham," and "Vindictive" have 16-year life under this clause, but they must be scrapped by end of 1936. All 8" gun cruisers have a life of 20 years. All replacement cruisers have life of 20 years.)

(b) For a surface vessel not exceeding 3,000 tons (3,048 metric tons) standard displacement;

- (i) If laid down before the 1st January, 1921, 12 years.
- (ii) If laid down after the 31st December, 1920, 16 years.

(O. N. I. Note: All United States destroyers built have life of 12 years; all British destroyers built except "Amazon" and "Ambus-

cade" (only 2 destroyers built of postwar design) have life of 12 years. 57 of the 102 Japanese destroyers built have a life of 12 years. All other destroyers have 16 years.)

(c) For a submarine, 13 years.

The keels of replacement tonnage shall not be laid down more than three years before the year in which the vessel to be replaced becomes "over age," but this period is reduced to two years in the case of any replacement surface vessel not exceeding 3,000 tons (3,048 tons) standard displacement.

The right of replacement is not lost by delay in laying down replacement tonnage.

SECTION II

Except as otherwise provided in the present treaty, the vessel or vessels, whose retention would cause the maximum tonnage permitted in the category to be exceeded, shall, on the completion or acquisition of replacement tonnage, be disposed of in accordance with Annex II to this Part II.

SECTION III

In the event of loss or accidental destruction a vessel may be immediately replaced.

ANNEX II

RULES FOR DISPOSAL OF VESSELS OF WAR

The present treaty provides for the disposal of vessels of war in the following ways:

- (i) By scrapping (sinking or breaking up).
 - (ii) By converting the vessel to a hulk.
 - (iii) By converting the vessel to target use exclusively.
 - (iv) By retaining the vessel exclusively for experimental purposes.
 - (v) By retaining the vessel exclusively for training purposes.
- Any vessel of war to be disposed of, other than a capital ship, may either be scrapped or converted to a hulk at the option of the high contracting party concerned.

Vessels, other than capital ships, which have been retained for target, experimental or training purposes, shall finally be scrapped or converted to hulks.

SECTION I

VESSELS TO BE SCRAPPED

(a) A vessel to be disposed of by scrapping, by reason of its replacement, must be rendered incapable of warlike service within

six months of the date of the completion of its successor, or of the first of its successors if there are more than one. If, however, the completion of the new vessel or vessels be delayed, the work of rendering the old vessel incapable of warlike service shall, nevertheless, be completed within four and a half years from the date of laying the keel of the new vessel, or of the first of the new vessels; but should the new vessel, or any of the new vessels, be a surface vessel not exceeding 3,000 tons (3,048 metric tons) standard displacement, this period is reduced to three and a half years.

(b) A vessel to be scrapped shall be considered incapable of warlike service when there shall have been removed and landed or else destroyed in the ship:

(1) All guns and essential parts of guns, fire control tops and revolving parts of all barbettes and turrets;

(2) All hydraulic or electric machinery for operating turrets;

(3) All fire-control instruments and range finders;

(4) All ammunition, explosives, mines, and mine rails;

(5) All torpedoes, warheads, torpedoe tubes, and training racks;

(6) All wireless telegraphy installations;

(7) All main propelling machinery or alternatively the armoured conning tower and all side armour plate;

(8) All aircraft cranes, derrick, lifts, and launching apparatus. All landing-on or flying-off platforms and decks, or alternatively all main propelling machinery;

(9) In addition, in the case of submarines, all main storage batteries, air compressor plants and ballast pumps.

(c) Scrapping shall be finally effected in either of the following ways within twelve months of the date on which the work of rendering the vessel incapable of warlike service is due for completion:

(1) Permanent sinking of the vessel;

(2) Breaking the vessel up; this shall always include the destruction or removal of all machinery, boilers and armour, and all deck, side, and bottom plating.

SECTION II

VESSELS TO BE CONVERTED TO HULKS

A vessel to be disposed of by conversion to a hulk shall be considered finally disposed of when the conditions prescribed in Section (I), Paragraph (b), have been complied with, omitting subparagraphs (6), (7), and (8), and when the following have been effected:

(1) Mutilation beyond repair of all propeller shafts, thrust blocks, turbine gearing, or main propelling motors, and turbines or cylinders of main engines.

(2) Removal of propeller brackets.

(3) Removal and breaking up of all aircraft lifts, and the removal of all aircraft cranes, derricks and launching apparatus.

The vessel must be put in the above condition within the same limits of time as provided in Section (I) for rendering a vessel incapable of warlike service.

SECTION III

VESSELS TO BE CONVERTED TO TARGET USE

(a) A vessel to be disposed of by conversion to target use exclusively shall be considered incapable of warlike service when there have been removed and landed, or rendered unserviceable on board the following:

(1) All guns;

(2) All fire-control tops and instruments and main fire-control communication wiring;

(3) All machinery for operating gun mountings or turrets;

(4) All ammunition, explosives, mines, torpedoes, and torpedo tubes;

(5) All aviation facilities and accessories.

The vessel must be put into the above condition within the same limits of time as provided in Section I for rendering a vessel incapable of warlike service.

(b) In addition to the rights already possessed by each high contracting party under the Washington Treaty, each high contracting party is permitted to retain, for target use exclusively, at any one time:

(1) Not more than three vessels (cruisers or destroyers), but of these three vessels only one may exceed 3,000 tons (3,048 metric tons) standard displacement.

(2) One submarine.

(O. N. I. Note: Allows three vessels, cruisers or destroyers, to be retained for targets after having been put in condition described. Only one of these can be greater than 3,000 tons displacement. Also 1 submarine may be retained.)

(c) On retaining a vessel for target use, the high contracting party concerned undertakes not to recondition it for warlike service.

SECTION IV

VESSELS RETAINED FOR EXPERIMENTAL PURPOSES

(a) A vessel to be disposed of by conversion to experimental purposes exclusively shall be dealt with in accordance with the provisions of Section III (a), of this Annex.

(b) Without prejudice to the general rules, and provided that due notice be given to the other high contracting parties, reasonable variation from the conditions prescribed in Section III (a) of this Annex, in so far as may be necessary for the purposes of a special experiment, may be permitted as a temporary measure.

Any high contracting party taking advantage of this provision is required to furnish full details of any such variations and the period for which they will be required.

(c) Each high contracting party is permitted to retain for experimental purposes exclusively at any one time:

(i) Not more than two vessels (cruisers or destroyers), but of these two vessels only one may exceed 3,000 tons (3,048 metric tons) standard displacement;

(ii) One submarine.

(O. N. I. Note: In addition to vessels which may be retained as targets two cruisers or destroyers may be retained for experimental purposes. Only one of these can be in excess of 3,000 tons. Also one submarine may be so retained.)

(d) The United Kingdom is allowed to retain in their present conditions the monitor *Roberts*, the main armament guns and mountings of which have been mutilated, and the seaplane carrier *Ark Royal* until no longer required for experimental purposes. The retention of these two vessels is without prejudice to the retention of vessels permitted under (c) above.

(e) On retaining a vessel for experimental purposes the high contracting party concerned undertakes not to recondition it for warlike service.

SECTION V

VESSELS RETAINED FOR TRAINING PURPOSES

(a) In addition to the rights already possessed by any high contracting party under the Washington Treaty, each high contracting party is permitted to retain for training purposes exclusively the following vessels:

United States: One capital ship (*Arkansas* or *Wyoming*);

France: Two surface vessels, one of which may exceed 3,000 tons (3,048 metric tons) standard displacement;

United Kingdom: One capital ship (*Iron Duke*);

Italy: Two surface vessels, one of which may exceed 3,000 tons (3,048 metric tons) standard displacement;

Japan: One capital ship (*Hiyei*), three cruisers (*Kuma* class).

(b) Vessels retained for training purposes under the provisions of paragraph (a) shall, within six months of the date on which they are required to be disposed of, be dealt with as follows:

1. CAPITAL SHIPS

The following is to be carried out:

- (1) Removal of main armament guns, revolving parts of all barbettes and turrets; machinery for operating turrets; but three turrets with their armament may be retained in each ship;
- (2) Removal of all ammunition and explosives in excess of the quantity required for target practice training for the guns remaining on board;
- (3) Removal of conning tower and the side armor belt between the foremost and aftermost barbettes;
- (4) Removal or mutilation of all torpedo tubes;
- (5) Removal or mutilation on board of all boilers in excess of the number required for a maximum speed of 18 knots.

2. OTHER SURFACE VESSELS RETAINED BY FRANCE, ITALY, AND JAPAN

The following is to be carried out:

- (1) Removal of one-half of the guns, but four guns of main calibre may be retained on each vessel;
 - (2) Removal of all torpedo tubes;
 - (3) Removal of all aviation facilities and accessories;
 - (4) Removal of one-half of the boilers.
- (c) The high contracting party concerned undertakes that vessels retained in accordance with the provisions of this section shall not be used for any combatant purpose.

ANNEX III

SPECIAL VESSELS

UNITED STATES

Name	Type of vessel	Displacement tons
Aroostook.....	Mine layer.....	4,950
Oglala.....	do.....	4,950
Baltimore.....	do.....	4,413
San Francisco.....	do.....	4,083
Cheyenne.....	Monitor.....	2,800
Helena.....	Gunboat.....	1,392
Isabel.....	Yacht.....	938
Niagara.....	do.....	2,600
Bridgeport.....	Destroyer tender.....	11,750
Dobbin.....	do.....	12,450
Melville.....	do.....	7,150
Whitney.....	do.....	12,450
Holland.....	Submarine tender.....	11,570
Henderson.....	Naval transport.....	10,000
Total.....	.....	91,496

SPECIAL VESSELS—Continued

FRANCE

Name	Type of vessel	Displacement tons
Castor.....	Mine layer.....	3,150
Pollux.....	do.....	2,461
Commandant Teste.....	Seaplane carrier.....	10,000
Aisne.....	Dispatch vessel.....	600
Marne.....	do.....	600
Ancre.....	do.....	604
Scarpe.....	do.....	604
Suippe.....	do.....	604
Dunkerque.....	do.....	644
Laffaux.....	do.....	644
Bapaume.....	do.....	644
Nancy.....	do.....	644
Calais.....	do.....	644
Lassigny.....	do.....	644
Les Eparges.....	do.....	644
Remiremont.....	do.....	644
Tahure.....	do.....	644
Toul.....	do.....	644
Hainautal.....	do.....	644
Lievin.....	do.....	644
(.....)	Net layer.....	2,293
Total.....		28,644

BRITISH COMMONWEALTH OF NATIONS

Adventure.....	Mine layer (United Kingdom).....	6,740
Albatross.....	Seaplane carrier (Australia).....	5,000
Erebus.....	Monitor (United Kingdom).....	7,200
Terror.....	do.....	7,200
Marshal Soult.....	do.....	6,400
Clive.....	Sloop (India).....	2,021
Medway.....	Submarine depot ship (United Kingdom).....	15,000
Total.....		49,561

ITALY

Miragli.....	Seaplane carrier.....	4,880
Faa Dibruno.....	Monitor.....	2,800
Monte Grappa.....	do.....	605
Montello.....	do.....	605
Monte Cengio.....	Ex-monitor.....	500
Monte Novegno.....	do.....	500
Campania.....	Sloop.....	2,070
Total.....		11,960

JAPAN

Aso.....	Minelayer.....	7,180
Tokiwa.....	do.....	9,240
Asama.....	Old cruiser.....	9,240
Yakumo.....	do.....	9,010
Izumo.....	do.....	9,180
Iwate.....	do.....	9,180
Kasuga.....	do.....	7,080
Yodo.....	Gunboat.....	1,320
Total.....		61,430

PART III

The President of the United States of America, His Majesty the King of Great Britain, Ireland, and the British Dominions Beyond the Seas, Emperor of India, and His Majesty the Emperor of Japan, have agreed as between themselves to the provisions of this Part III:

ARTICLE XIV

The naval combatant vessels of the United States, the British Commonwealth of Nations and Japan, other than capital ships, aircraft carriers, and all vessels exempt from limitation under Article VIII, shall be limited during the term of the present treaty as provided in this Part III, and in the case of special vessels, as provided in Article XII.

ARTICLE XV

For the purpose of this Part III the definition of the cruiser and destroyer categories shall be as follows:

Cruisers.

Surface vessel of war, other than capital ships or aircraft carriers, the standard displacement of which exceeds 1,850 tons (1,880 metric tons), or with a gun above 5.1 inch (130 mm.) calibre.

The cruiser category is divided into two subcategories as follows:

- (a) Cruisers carrying a gun above 6.1 inch (155 mm.) calibre;
- (b) Cruisers carrying a gun not above 6.1 inch (155 mm.) calibre.

Destroyers.

Surface vessels of war the standard displacement of which does not exceed 1,850 tons (1,880 metric tons), and with a gun not above 5.1 inch (130 mm.) calibre.

ARTICLE XVI

1. The completed tonnage in the cruiser, destroyer, and submarine categories which is not to be exceeded on the 31st December, 1936, is given in the following table:

Categories	United States	British Commonwealth of Nations	Japan
Cruisers:			
(a) With guns of more than 6.1 inch (155 mm.) caliber.	180,000 tons. (182,880 metric tons)	146,800 tons. (149,149 metric tons)	108,400 tons. (110,134 metric tons).
(b) With guns of 6.1 inch (155 mm.) caliber or less.	143,500 tons. (145,796 metric tons)	192,200 tons. (195,275 metric tons)	100,450 tons. (102,057 metric tons).
Destroyers.	150,000 tons. (152,400 metric tons)	150,000 tons. (152,400 metric tons)	105,500 tons. (107,188 metric tons).
Submarines.	52,700 tons. (53,543 metric tons)	52,700 tons. (53,543 metric tons)	52,700 tons. (53,543 metric tons).

2. Vessels which cause the total tonnage in any category to exceed the figures given in the foregoing table shall be disposed of gradually during the period ending on 31st December, 1936.

(O. N. I. Note: Requires that excess tonnage in any category must be disposed of by 31 December, 1936. No requirement on disposal except that it shall be disposed of gradually. Also the rules for scrapping provide that on completion of new tonnage the tonnage which it is to replace must be scrapped.)

3. The maximum number of cruisers of subcategories (a) shall be as follows:

For the United States, eighteen; for the British Commonwealth of Nations, fifteen; for Japan, twelve.

4. In the destroyer category not more than sixteen per cent of the allowed total tonnage shall be employed in vessels of over 1500 tons (1,524 metric tons) standard displacement. Destroyers completed or under construction on 1st April, 1930, in excess of this percentage may be retained, but no other destroyers exceeding 1500 tons (1,524 metric tons) standard displacement shall be constructed or acquired until a reduction to such sixteen per cent has been effected.

(O. N. I. Note: This allows United States 24,000 tons of destroyers whose individual displacement exceed 1,500 tons, British Empire the same, Japan 16,872 tons.)

5. Not more than twenty-five per cent of the allowed total tonnage in the cruiser category may be fitted with a landing-on platform or deck for aircraft.

6. It is understood that the submarines referred to in paragraphs 2 and 3 of Article VII will be counted as part of the total submarine tonnage of the high contracting parties concerned.

7. The tonnage of any vessels retained under Article XIII or disposed of in accordance with Annex II to Part II of the present treaty shall not be included in the tonnage subject to limitation.

(O. N. I. Note: Excludes Training Ships, experimental vessels, target vessels, etc.)

ARTICLE XVII

A transfer not exceeding ten per cent of the allowed total tonnage of the category or subcategory into which the transfer is to be made shall be permitted between cruisers of subcategory (b) and destroyers.

(O. N. I. Note: The following transfer may be made (1) from 6'' gun cruisers to destroyers—United States, 15,000 tons; Great Britain, 15,000 tons; Japan, 10,545 tons. (2) from destroyers to 6'' gun cruisers—United States, 14,350 tons; Great Britain, 19,220 tons; Japan, 10,045 tons.)

ARTICLE XVIII

The United States contemplates the completion by 1935 of fifteen cruisers of subcategory (a) of an aggregate tonnage of 150,000 tons (152,400 metric tons). For each of the three remaining cruisers of subcategory (a) which it is entitled to construct the United States may elect to substitute 15,166 tons (15,409 metric tons) of cruisers of subcategory (b). In case the United States shall construct one or more of such three remaining cruisers of subcategory (a) the sixteenth unit will not be laid down before 1933 and will not be completed before 1936; the seventeenth will not be laid down before 1934 and will not be completed before 1937; the eighteenth will not be laid down before 1935 and will not be completed before 1938.

(O. N. I. Note: This clause is self-explanatory. Great Britain completes her quota this year, Japan next year. If we lay down and complete 150,000 tons only of 8" gun cruisers we may lay down and complete 118,500 tons of 6" gun cruisers.)

ARTICLE XIX

Except as provided in Article XX, the tonnage laid down in any category subject to limitation in accordance with Article XVI shall not exceed the amount necessary to reach the maximum allowed tonnage of the category, or to replace vessels that become "over age" before December 31st, 1936. Nevertheless, replacement tonnage may be laid down for cruisers and submarines that become "over age" in 1937, 1938, and 1939, and for destroyers that become "over age" in 1937 and 1938.

ARTICLE XX

Notwithstanding the rules for replacement contained in Annex I to Part II:

(a) *The "Frobisher" and "Effingham" (United Kingdom) may be disposed of during the year 1936.*—Apart from the cruisers under construction, on the 1st April, 1930, the total replacement tonnage of cruisers to be completed, in the case of the British Commonwealth of Nations, prior to 31st December, 1936, shall not exceed 91,000 tons (92,456 metric tons).

(O. N. I. Note: This sentence could for clarity be rewritten, "The 'Frobisher' and 'Effingham' (United Kingdom) may be retained until during the year 1936." The British Empire can complete 91,000 tons of 6" gun cruisers by Dec. 31st, 1936, and can in addition lay down prior to that date about 86,000 tons for completion after 1936. Normally 138,700 tons of 6" gun cruisers (British) would pass age limit by end of 1936.

It is the understanding that, inclusive of replacement tonnage, the British Empire will complete only 91,000 total tons of 6-inch gun cruisers prior to 31st December 1936.

(b) Japan may replace the *Tama* by new construction, to be completed during the year 1936.

(c) In addition to replacing destroyers becoming "over age" before 31st December, 1936, Japan may lay down, in each of the years 1935 and 1936, not more than 5,200 tons (5,283 metric tons) to replace part of the vessels that become "over age" in 1938 and 1939.

(O. N. I. Note: Japan normally would have about 8,095 tons of destroyers which would become obsolete in 1938 and 5,820 tons in 1939. This allows her to lay down 10,200 and advance part of this by one year from the normal, i. e., normally she could lay down 8,095 tons in 1936.)

(d) Japan may anticipate replacement during the term of the present treaty by laying down not more than 19,200 tons (19,507 metric tons) of submarine tonnage, of which not more than 12,000 tons (12,192 metric tons) shall be completed by 31st December, 1936.

(O. N. I. Note: Without this provision on completion of the seven boats now building (3 of which are due for completion in 1930, 1 in 1931, and 3 in 1932) Japan would not be able to complete any other submarines before 1936. However, she would be able to lay down 6,410 tons in 1934 for tonnage overage in 1937, 3,366 tons in 1935 for tonnage overage in 1938 and 8,829 tons in 1936 for tonnage overage in 1939; total, 18,605. This clause permits her to lay down 19,200 tons prior to 1936, of which she may complete 12,000 tons by December 31, 1936, instead of laying down 18,605 tons prior to that date, and completing none.)

ARTICLE XXI

If, during the term of the present treaty, the requirements of the national security of any high contracting party in respect of vessels of war limited by Part III of the present treaty are in the opinion of that Party materially affected by new construction of any power other than those who have joined in Part III of this treaty, that high contracting party will notify the other parties to Part III as to the increase required to be made in its own tonnages within one or more of the categories of such vessels of war, specifying particularly the proposed increases and the reasons therefor, and shall be entitled to make such increase. Thereupon the other parties to Part III of this treaty shall be entitled to make a proportionate increase in the category or categories specified; and the said other parties shall promptly advise with each other through diplomatic channels as to the situation thus presented.

PART IV

ARTICLE XXII

The following are accepted as established rules of international law :

1. In their action with regard to merchant ships, submarines must conform to the rules of international law to which surface vessels are subject.

2. In particular, except in the case of persistent refusal to stop on being duly summoned, or of active resistance to visit or search, a warship, whether surface vessel or submarine, may not sink or render incapable of navigation a merchant vessel without having first placed passengers, crew, and ship's papers in a place of safety. For this purpose the ship's boats are not regarded as a place of safety unless the safety of the passengers and crew is assured, in the existing sea and weather conditions, by the proximity of land, or the presence of another vessel which is in a position to take them on board.

The high contracting parties invite all other powers to express their assent to the above rules.

PART V

ARTICLE XXIII

The present treaty shall remain in force until the 31st December, 1936, subject to the following exceptions :

(1) Part IV shall remain in force without limit of time;

(2) The provisions of Articles III, IV, and V, and of Article XI and Annex II to Part II so far as they relate to aircraft carriers, shall remain in force for the same period as the Washington Treaty.

Unless the high contracting parties should agree otherwise by reason of a more general agreement limiting naval armaments, to which they all become parties, they shall meet in conference in 1935 to frame a new treaty to replace and to carry out the purposes of the present treaty, it being understood that none of the provisions of the present treaty shall prejudice the attitude of any of the high contracting parties at the conference agreed to.

(O. N. I. Note: Calls another Conference in 1935.)

ARTICLE XXIV

1. The present treaty shall be ratified by the high contracting parties in accordance with their respective constitutional methods and the ratification shall be deposited at London as soon as possible. Certified copies of all the proces verbaux of the deposit of ratification

will be transmitted to the governments of all the high contracting parties.

2. As soon as the ratification of the United States of America, of His Majesty the King of Great Britain, Ireland, and the British Dominions Beyond the Seas, Emperor of India, in respect of each and all of the members of the British Commonwealth of Nations as enumerated in the preamble of the present treaty, and of His Majesty the Emperor of Japan have been deposited, the treaty shall come into force in respect of the said high contracting parties.

3. On the date of the coming into force referred to in the preceding paragraphs, Parts I, II, IV, and V of the present treaty will come into force in respect of the French Republic and the Kingdom of Italy if their ratifications have been deposited at that date; otherwise these Parts will come into force in respect of each of those powers on the deposit of its ratification.

4. The rights and obligations resulting from Part III of the present treaty are limited to the high contracting parties mentioned in paragraph 2 of this Article.

The high contracting parties will agree as to the date on which, and the conditions under which, the obligations assumed under the said Part III by the high contracting parties mentioned in paragraph 2 of this Article, will bind them in relation to France and Italy: such agreement will determine at the same time the corresponding obligations of France and Italy in relation to the other high contracting parties.

ARTICLE XXV

After the deposit of the ratifications of all the high contracting parties, His Majesty's Government in the United Kingdom of Great Britain and Northern Ireland will communicate the provisions inserted in Part IV of the present treaty to all powers which are not signatories of the said treaty, inviting them to accede thereto definitely and without limit of time.

Such accession shall be effected by a declaration addressed to His Majesty's Government in the United Kingdom of Great Britain and Northern Ireland.

ARTICLE XXVI

The present treaty, of which the French and English texts are both authentic, shall remain deposited in the archives of His Majesty's Government in the United Kingdom of Great Britain and Northern Ireland. Duly certified copies thereof shall be transmitted to the Governments of all the high contracting parties. In faith whereof the above-named plenipotentiaries have signed the present treaty and have affixed thereto their seals.

Done at London, the twenty-second day of April, 1930.

The PRESIDENT:

The undersigned, the Secretary of State, has the honor to lay before the President, to the end that it may be transmitted to the Senate with a view to receiving the advice and consent of that body to ratification, if his judgment approve thereof, a treaty for the limitation and reduction of naval armament, signed at London on April 22, 1930, by the plenipotentiaries of the President of the United States of America; the President of the French Republic; His Majesty the King of Great Britain, Ireland, and the British Dominions Beyond the Seas, Emperor of India; His Majesty the King of Italy; and His Majesty the Emperor of Japan.

Respectfully submitted.

HENRY L. STIMSON.

DEPARTMENT OF STATE,
Washington, April 30, 1930.



To the Senate:

I transmit herewith a treaty for the limitation and reduction of naval armament, signed at London on April 22, 1930, by the plenipotentiaries of the President of the United States of America; the President of the French Republic; His Majesty the King of Great Britain, Ireland, and the British Dominions Beyond the Seas, Emperor of India; His Majesty the King of Italy; and His Majesty the Emperor of Japan, to the ratification of which I ask the advice and consent of the Senate.

HERBERT HOOVER.

THE WHITE HOUSE,
Washington, May 1, 1930.



CURRENT ARTICLES OF PROFESSIONAL INTEREST

India's Advance Towards Democracy. By Lord Lloyd. (Fortnightly Review, April, 1930.)

Some Legal Consequences if Extraterritoriality is Abolished in China. By Quincy Wright (American Journal of International Law, April, 1930.)

Neutrality during The European Wars of 1792-1815. By Charles S. Hyneman. (American Journal of International Law, April, 1930.)

The Lines of Communication in The Dardanelles. By Lieut. Gen. Sir George MacMunn. (The Army Quarterly, April, 1930.)

Searchlights in Air Defense. By Major J. S. Baines. (The Army Quarterly, April, 1930.)



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O. N. I. BULLETIN

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III



Cardot
H. A. W.

COMMUNISM IN THE UNITED STATES

(Note: The information contained in this paper is an evaluation of the reports received from many sources)

Communism in the United States is directly controlled by the Communist International in Russia through the Central Executive Committee of the national office of the Communist Party of the United State, located in New York City.

The mission of the Communists is the overthrow of our present Government by force and the substitution therefor of the Soviet form of government under the management of the Communists.

The United States would then become one of the States of the Union of Socialist Soviet Republics.

What is the Communist plan to accomplish their mission?

The plan in general consists in persuading a minority of the working class to become Communists and then welding them into a militant organization of trained revolutionists which will be capable of seizing control of all key industries and the country's armed forces when the conditions have become such as to expect success.

The subversive efforts include both legal and illegal methods and the organization is so modeled as to take care of both.

The complete organization will first be explained and then the methods employed to obtain and train recruits.

ORGANIZATION

The supreme governing authority, subject only to the direction and control of the Comintern, is the Central Executive Committee of the national office.

The executive organ of the Central Executive Committee is the Secretariat, which consists of about eight members of the Central Executive Committee. Set up by the Central Executive Committee and responsible to it are various departments which are charged with specific duties. Each department is headed by a director, is controlled by a committee appointed by the Central Executive Committee, and submits its decisions to the Central Executive Committee for approval.

The following are the principal departments of the national office:

Organization department.—Handles all the details of the party organization throughout the country.

Agitation and propaganda department.—Responsible for the planning and execution of party publicity.

Language department.—Takes care of the non-English speaking Communists and directs the activities of the language bureaus, of which there is one for each language.

Antiimperialist department.—In charge of the work of the United States section of the All America Anti-Imperialist League.

Finance department.—As its name implies, this department handles all party financial matters.

Woman's department.—In general charge of work of women Communists.

Young Communist League department.—Supervises and directs work of young Communists between the ages of 15 and 22 and especially charged with subversive work in the armed forces.

Agricultural department.—In charge of work among farmers.

Trade-union department.—In charge of work in developing Communist unions and penetrative efforts to gain control of non-Communist controlled unions.

Negro department.—In charge of all work among negroes.

Industrial department.—Has the particular responsibility of spreading Communism in all branches of organized industry.

In addition and complementary to the above departments are several important committees and commissions, the membership of which is elected by the Central Executive Committee. These are—

Central control commission.—In charge of party discipline. In effect this commission is a permanent courts-martial board which investigates infractions of party discipline and prescribes the penalties therefor. Its decisions in important matters are subject to the final approval of the Central Executive Committee.

Political committee.—The membership of this committee is selected by the Central Executive Committee and contains some members of the Central Executive Committee. Principal duties are to make decisions concerning matters of policy, not only as concerns local American Communist work, but also as concerns cooperation with the Union of Socialist Soviet Republics.

For example, when the Communist International instructed the American Communist Party to conduct a campaign against the danger of war with the Union of Socialist Soviet Republics, this committee formulated the policies for carrying out this campaign in America. It also formulates plans for the work and organization of auxiliary Communist bodies, such as the All America Anti-Imperialist League, International Labor Defence, Workers International Relief, etc. However, all decisions of this committee are submitted to the Central Executive Committee for final approval.

The United States is divided into 13 industrial districts and 2 agricultural districts, each headed by a district organizer. Below are shown the district limits and headquarters of each district.

District organizer	Address of office	States included in district
District 1: Roy Stephens.....	36 Causeway, Boston.....	Massachusetts, Rhode Island, Maine, Vermont, New Hampshire.
District 2: Israel Amter.....	108 East Fourteenth Street, New York City.	New York City, Yonkers, New Jersey (Hudson and Essex Counties).
District 3: Emil Gardos.....	521 York Avenue, Philadelphia...	Washington, D. C., Delaware, eastern Pennsylvania, Maryland, western New Jersey.
District 4: A. Mills.....	8-20 Eagle Street, Buffalo.....	Northwestern New York State, Erie, Pa.
District 5: Pat Devine.....	805 James Street, North Side, Pittsburgh, Pa.	Western Pennsylvania, West Virginia.
District 6: J. Adams.....	2209 Ontario Street, Second floor, Cleveland, Ohio.	Ohio only.
District 7: Jack Stachel.....	1967 Grand River, Detroit, Mich..	Lower Michigan, Indianapolis, Ind.
District 8: Bill Gebert.....	2201 West Division Street, Chicago, Ill.	Northwestern Indiana, St. Louis, Mo., Illinois, lower Wisconsin.
District 9: Karl Reeves.....	Humboldt Hall, Minneapolis.....	Minnesota, Wisconsin.
District 10: David Gorman.....	Room 1, 207 East Fourteenth Street, Kansas City, Mo.	Colorado, Missouri, Iowa, Texas, New Mexico.
District 12: Sidney Bloomfield..	Box 125, Seattle, Wash.....	Washington, Oregon.
District 13: William Simons.....	145 Turk Street, San Francisco, Calif.	California.
District 15: Peter Chaunt.....	Room 6, 38 Howe Street, New Haven, Conn.	Connecticut.
North agricultural district: Alfred Knutson.	Box 293, Bismarck, N. Dak.....	North Dakota, Montana, South Dakota, Kansas.
South agricultural district: William F. Dunne.	Atlanta, Ga.....	Not known.

The organization in each district is patterned after the national office, with the exception that the district organizer is the real leader in the district and is appointed by and directly responsible to the Central Executive Committee of the national office. Each district, however, has its central executive committee, its control commission and the several departments and committee as above described for the national office. Each district is further divided into subdistricts and subdistricts into sections, shop nuclei, and street nuclei.

In addition in each district are organizers for the various auxiliary organizations, such as the International Labor Defence, Workers International Relief, All America Anti-Imperialist League, Young Communist League, and Young Pioneers.

Occasionally, as conditions require, special industrial organizers are appointed wherever special effort is to be made to penetrate certain industries. Usually this step is taken when trouble develops in some large industry and possibility of a strike is indicated.

The district organization is primarily designed to further the subversive work among industrial workers. Some work is done with the farming class but by far the greatest effort is with the industrial element.

The principal reason for this is the Communist opposition to capitalism. According to Communist principles no man can own

property nor engage in business for his own profit resulting from the employment of workers and no man can advance himself materially above his fellows.

By concentrating their major effort among industrial workers, should the movement become successful, our present so-called capitalistic economic system would be readily paralyzed.

Also, the industrial workers are concentrated in numbers, contain a greater proportion of aliens, and thus can be subverted with less effort.

The most important and dangerous part is the underground or secret section of the organization.

The Communist leaders in the Comintern¹ early established the principle that, for a minority movement to successfully seize control of power, a secret organization must be set up in key positions in factories, in the armed forces, in transportation companies, both ashore and afloat, communication companies, munition factories, Government arsenals and navy yards, and other military establishments. This secret organization does not appear above surface until the day of the revolution arrives. When it does arrive the Communists in the secret organization are expected to seize control and furnish the leaders for the mass rise of the workers.

This secret organization consists of the establishment of nuclei of trained Communists in the various departments, factories, shops, and organizations mentioned above, the formation of street nuclei trained to be ready to seize control of city streets, and the establishment of cells and nuclei in the armed forces, Army, Navy, National Guard, etc.

The instructions of the Comintern relative to the above illegal and secret work are quoted:

The fundamental principle of all organization work of a Communist Party and of individual Communists must be the creation of Communist nuclei whenever proletarians or semiproletarians can be found in even the smallest numbers.

The power of 100 is greater than 1,000 when the 100 is organized.

It is essential that there be secrecy in establishing nuclei.

Shop nuclei must sink roots of party deep in basic industries.

Factory nuclei must always be illegal even in legal countries.

The Comintern has again called attention to the absence of effective work among students' training organizations, such as the reserve officers' training camps in the various schools and universities. Members of the Young Workers League should be instructed to join these organizations and carry on party propaganda. This is especially important in connection with the Naval Reserve Officers Training Camps at some of the leading universities, such as California, Washington, and Yale and other schools where Naval Reserve officers are being trained.

¹ Comintern is the abbreviation for Communist International.

Work among enlisted personnel should be pushed. Men serving in the technical departments, such as signal men, telegraphers, food workers, and instrument men should be brought into the party and instructed. (May 30, 1929.)

A *cell* is one Communist established in an organization and whose Communist affiliation is kept secret.

A *nuclei* consists of from 4 to 15 Communists secretly established in an organization.

Principal methods used in establishing nuclei:

By colonization—specially trained Communists are ordered to seek employment in the organization to be penetrated.

By propaganda—in case of conditions causing discontent among the personnel of a plant Communist organizers endeavor to enlist workers in the party and then organize such members into nuclei.

Due to the use of fictitious party names by members of nuclei and to the prescribed secrecy, efforts to estimate the strength of the nuclei organization have been quite unsuccessful as regards military organizations, although it is known that nuclei exist in the New York and Philadelphia Navy Yards, and that some cells are reported as established on board ships of the Navy.

Data is also very incomplete respecting civil industries, although information available indicates that Communist penetration has been widespread in the important industrial sections of the country. For example, it is reported that in the ninth naval district alone as many as 47 important industries have been penetrated. This list includes the United States Steel Corporation, International Harvester Co., Western Electric, Crane Co., Nash Motors, Fisher Body, Ford Motor Co., Westinghouse, Swift Packing Co., United States Rubber Co., Stewart Warner, Hart, Schaffner & Marx, Chicago, and Northwestern Railroad Co., American Steel & Wire Co., and other major industrial organizations.

While it is reported that there are somewhere between 12 and 150 Communists cells or nuclei among the enlisted personnel of the regular Navy, their actions have been so cautious that no report has been received from any naval command indicating Communist activity by enlisted personnel. In fact, the only evidence in support of the reports that there are enlisted Communists has been Communist propaganda letters and leaflets which are so worded as to cause strong suspicion that the writer must necessarily be in the service. It is reported that the Communists in the service are well educated and have undergone careful Communist training. It is expected that these Communist cells in the Navy are very cautiously endeavoring to spread the seeds of Communism among their shipmates.

METHODS EMPLOYED TO OBTAIN COMMUNIST RECRUITS

Agitation and propaganda is the name of one of the main departments of the national office, and it is mainly by agitation and propaganda that the seeds of Communism are sown. Every possible effort is made to gain publicity, both through the many Communist papers and publications and through the non-Communist press.

The street demonstrations such as were held throughout the country on March 6, 1930, are excellent examples of pure propaganda. These were not intended as a demonstration of Communist strength, nor as an effort to gain help for the unemployed. The Communist International directed that *militant* street demonstrations must be held with or without a permit; that police action was to be incited for the purpose of awakening mass action against police brutality and to break down respect of workers for the police; that cheering squads should be organized; that defense corps should be used and trained to prevent police interference with the Communist speakers, and that the "Young Pioneers" should march in the van so that the charge could be made that the police attacked children.

The result was wide publicity, tending to cause an exaggerated impression of Communist strength. Additional propaganda results from the usual arrest of the leading Communists in such a parade.

Lawyers are obtained for the defense of these innocents and funds to pay for these lawyers are obtained from the International Labor Defense, the American Civil Liberties Union, the American fund for Public Service, or the Workers International Relief. During the trials every effort is made to obtain further press publicity and if a prison sentence is meted out, then the working class is told the prisoner is a class martyr who is suffering in prison to help them obtain freedom from the oppression of the capitalist class.

The vicious cycle of the Communists is well illustrated when a strike threatens in an industrial plant. Communist organizers are rushed to the scene and make every effort to persuade the workers to go on strike. Mass meetings are called, hand bills circulated, and much oratory is indulged in to stir up resentment between workers and the plant operators. When the strike goes into effect control is secured by the Communist leaders whenever possible. The strike is continued and aggravated to the greatest extent. The strikers are given food, shelter, and other assistance by one or more of the Communist auxiliary organizations, such as the International Labor Defense and the Workers International Relief. Funds are readily secured from sympathetic people eager to alleviate the hardships and suffering of humanity, but unaware of the true nature of the soliciting organizations or the major cause of the sufferings of those they

seek to help. These subscribers do not generally know that part of the money collected by these organizations helps finance the Communist Party and that some of it pays the expenses of Communist propagandists sent to start strikes. Striker's riots and clashes with the police or guards of the employers are encouraged and instigated by the Communist strike agitators.

During the period of the strike and afterwards effort is made to gain new members for the Communist Party, and to establish nuclei in the various departments of the industry. Also the strikers and sympathizers are urged to join the Communist labor unions. It is always during times of labor trouble and strikes that Communist propaganda is most successful and new recruits gained.

FORMATION OF COMMUNIST UNIONS

The Trade-Union Unity League is the Communist organization in this country which has the responsibility of organizing Communist labor unions in opposition to the American Federation of Labor. The head executive is William Z. Foster, who was recently sentenced to jail in New York for inciting to riot in connection with the March 6, 1930, Communist demonstration in New York City. The Trade-Union Unity League is affiliated with the Red International of Trade-Unions known as the Profintern.

The Red Unions known to date are listed below :

1. Agricultural Workers Industrial Union.
2. Amalgamated Clothing Workers Industrial Union.
3. Building Maintenance Workers Industrial Union.
4. Cleaning and Laundry Workers Industrial Union.
5. Food and Packing House Workers Industrial Union.
6. Jewel Workers Industrial Union.
7. National Metal Workers Industrial League.
8. Marine Workers Industrial League.
9. National Railroad Workers Industrial League.
10. Needle Trades Workers Industrial League.
11. National Auto Workers Industrial League.
12. Lumber Workers Industrial Union.
13. National Textile Workers Union.
14. Shoe Workers Industrial Union.
15. National Miners Union.
16. Rubber Workers Industrial Union.
17. Painters Industrial Union.
18. Furniture Workers Industrial Union.
19. Negro section.
20. Women's section.
21. Youth section.

The numerical strength of these unions is not known but is apparently of sufficient moment to cause the active opposition of the American Federation of Labor.

Of particular interest to the Navy is the Marine Workers Industrial League or Union. It has been reported that 8,600 members of the seafaring fraternity of the United States have signed up with this organization and that 50 of these are enlisted personnel of the fleet.

SUBVERSIVE EFFORTS WITH NEGROES

One of the most dangerous propaganda efforts is the deliberately planned attempt to stir up trouble between the White and Negro races. The bait held out is that the Communists practice complete racial equality and that only when the Communist Government is set up in the United States will the negroes obtain equality treatment and freedom from exploitation by the white bosses.

The Communists make a point of encouraging mixed social functions where white women Communists dance with negro men and vice versa. The American Negro Labor Congress organized by the Communist Party is an example of their effort to obtain negro recruits wholesale. Prior to 1928, little success resulted from these attempts, mainly due to the error of appointing negro organizers of West Indian origin rather than native American negroes. This mistake has been corrected and now a number of American negroes have been sent to schools in Russia, indoctrinated by the Communists, and appointed to membership in the negro department of the national office. So far as is known to date a considerable number of negroes employed in northern industrial centers have joined the party, but in the agricultural districts of the South subversive efforts among the negroes have been negligible.

WORK AMONG NON-ENGLISH ELEMENT

Efforts to communize the foreign-born element in our population has met with greater success than has any other subversive effort of the Communists. Many of these speak and read English imperfectly, if at all, and are primarily reached by the Communists through that part of the foreign-language press which is controlled by them.

As has been seen in the organization of the national office, there is a language department which is in charge of the work among this part of our people.

There are 18 sections under the administration of the language bureau department, as follows:

Armenian.	Estonian.	Lettish.	Greek.
German.	Polish.	Hungarian.	Jewish.
Scandinavian.	Rumanian.	Finnish.	Lithuanian.
Ukranian.	South Slavic.	Czechoslovak.	
Russian.	Italian.	Bulgarian.	

The Communist-controlled press which spreads the poisonous propaganda of the Communists consists of the following:

Destepterea.	Obrana.	Lavoratore.	Robotnicza.
Elore.	Radnik.	Laisve.	Tyomies.
Empress.	Rvonost Ludo.	Nor Ashkhar.	Ukr Daily News.
Eteenpain.	Saznanic.	Novy Mir.	Uus Ilm.
Freiheit.	Toveri.	Ny Tid.	Vilnis.

It is reported that there are 200,000 individuals who are signed up with this part of the Communist organization. All of these may not have signed up as members of the Communist Party of the United States, but undoubtedly all are strongly sympathetic.

COMMUNIST AUXILIARY ORGANIZATIONS

Much of the propaganda which results in material assistance to the Communist mission is disseminated through the medium of auxiliary Communist organizations.

These organizations are all officered by Communists and are under the complete control of the national office of the Communist Party of the United States.

Probably many of those that join these organizations do not realize that by so doing they aid the Communists in their plan to overthrow the Government of the United States.

Great financial assistance is rendered by some of the organizations, notably the International Labor Defense, the Workers International Relief, and the American Fund for Public Service. During the textile strikes at Gastonia and vicinity in North Carolina, successful campaigns for funds were conducted by the Workers' International Relief and the International Labor Defense for the announced purpose of providing food, shelter, and similar assistance for the strikers.

It may not have been known by the contributors that some of the money collected paid for strikers' defense attorneys and for the expenses and salaries of Communist strike organizers rushed to the scene by the Communist National Office.

The American Fund for Public Service likewise contributed several thousand dollars for defense lawyers' fees and for a bail fund.

The complete list of auxiliary Communist organizations as far as known follows:

1. Workers International Relief.
2. International Labor Defence.
3. All America Anti-Imperialist League.
4. National Council for the Protection of Foreign Born Workers.
5. American Negro Labor Congress.
6. Anti-Fascisti League of North America.
7. Anti-Horthy League.
8. United Farmers' Educational League.

9. American Society for Cultural Relations with Russia.
10. Friends of the Soviet Union.
11. Federated Press.
12. Labor Research Association.
13. Labor Sports Union.
14. John Reed Club.
15. United Council of Working Class Housewives.
16. United Council of Working Class Women.
17. Workers Library Publishers.
18. International Publishers.
19. Young Communist League of America.
20. Young Pioneers of America.
21. Russian Cooperative Association.
22. Jewish Freiheit.
23. Bezboshnik (Russian Godless Society).
24. United Workers Cooperative Association (Camps Nitgedaiget).
25. Russian Mutual Aid Society.
26. Hungarian Sick and Death Benefit Society.
27. Independent Workmen's Circle.
28. I. C. O. R. (Society for Colonizing Russia).
29. Russian Reconstruction Farms.
30. Proletarian Dramatic Association of America.
31. Amtorg Trading Corporation (Independent of National Office).
32. Soviet Union Information Bureau.
33. American Fund for Public Service.
34. Ukranian Women Toilers Association.
35. American Lithuanian Workers Labor Society.
36. Slovak Workers Society.
37. Ukranian Workers Club.
38. Red Poets.

One of the Communist propaganda organizations which deserves special mention is the All America Anti-Imperialist League, United States section. As its name implies, the purpose of this organization is ostensibly to fight against the United States' so-called imperialism. Actually it is but an important cog in the Communist machinery which seeks to undermine faith in our Government, to oppose and cast discredit on our Government's foreign policy, and to do all in its power to stir up antagonism against the United States, in Central and South American countries, in the West Indies, and in the Philippines.

It is known that this organization was the instrument through which funds were collected and sent to Sandino to assist him in his fight against the United States marines in Nicaragua. It may surprise many to know that recently the national committee of this Communist organization included such prominent individuals as Clarence Darrow, Roger Baldwin, Theodore Debs, Anita Whitney, Scott Nearing, Robert W. Dunn, Robert Morss Lovett, Arthur Garfield Hayes, and Upton Sinclair.

Considerable aid is given to the cause of Communism by individuals and societies that do not admittedly profess Communism, but who defend every subversive movement and condemn the efforts of the Government to protect our institutions and principles by prosecuting those that seek to overthrow our Government. Such a society is the American Civil Liberties Union. This organization has extreme radical tendencies and goes so far as to insist that the right of free speech may be practiced even if it is advocated to overthrow the Government by force and violence. Among its officers are Communists, preachers, and professors. Financial aid has been given by this society to Communist organizations and in defense of Communists.

SUBVERSIVE WORK AMONG YOUTHS

The Communists do not restrict their propaganda efforts to the adults alone. They attempt to defeat the Americanization of the children of the foreign born by the establishment of Communist schools throughout the country. In New York City is the national headquarters of the workers' school, which maintains branch workers' schools in many cities in the country. Reports have been received that such workers' schools have been established in Detroit, New York, Chicago, Cleveland, Akron, Canton, Toledo, Youngstown, San Francisco, and Minneapolis. During 1929 there were enrolled 2,064 students in the New York workers' school alone. The primary purpose of such schools is to teach the principles of Communism. It is significant that on the letterhead of the workers' school stationery is the quotation at the top of the page—"Training for the class struggle." Furthermore each year a number of promising young American Communists are sent for a postgraduate course in Communism to universities in Russia.

Additional efforts to indoctrinate the young are seen in the following Communist organizations.

The Young Pioneers.—This is the Communist counterpart of the Boy Scouts.

The Young Communist League.—These are the older youths from 15 to 22 years old. To this organization has been given the Communist duty of subversive work in the armed forces of the country.

The Communist International has issued the following instructions:

The league (Young Communist League) should send its members into the armed forces, carry on Communist work there, demoralize them as fighters and win them to the proletarian cause.

Further effort toward subversion of youth is seen in the organization known as Labor Sports Union. This is a Red organization de-

signed to attract youth due to love of sports. Those joining this organization are of course subjected to Communist propaganda. It is interesting and perhaps significant that a certain amount of military training is given to the youths who join this organization.

POLITICS

During the 1924 elections the Communists campaigned under the name "Workers (Communist) Party of America."

William Z. Foster, who is now a member of the Central Executive Committee of the national office and also head of the Trade-Union Unity League, ran for president. This is the same Foster who was recently sentenced to three years in prison in connection with the part he played in the riots in New York on March 6, 1930.

The election campaign committee covered 44 States and the total Communist votes polled were 48,000. This of course represents an insignificant percentage of our population, but in this connection it must be remembered that the Communists neither expect nor plan to gain control by legal political methods. Their political activities are carried on for publicity and propaganda purposes solely. They do not expect that even a majority of the working class, much less of the whole population, will have adopted Communism by the time the day of uprising arrives.

In Russia, even after 12 years of Communist management, only about 1 per cent of the population are members of the Russian Communist Party.

ADDITIONAL PROPAGANDA METHODS

It is reported that there are numerous propaganda films in circulation throughout the country which glorify the successful so-called workers' revolution in Russia and which present conditions for the working class in Russia as superior to conditions here.

The Duncan dancers' tour through this country was under Communist management and played a part in Communist propaganda efforts. This tour of the Duncan dancers was arranged for by William Z. Foster during a recent visit to Russia.

The workers' forums in operation in many cities in the country offer speakers, not only well-known Communist spell binders but others who are sympathetic but not known as Communists. Propaganda in an interesting way is fed to the working class by this method.

There are many temporary committees and societies set up by Communists from time to time for particular reasons. One of these societies recently formed for the purpose of combating action against reported religious persecution in Russia was called "The Committee on Justice to Russia."

PROPAGANDA IN THE ARMED FORCES

The Communist subversive propaganda concerning the Navy as far as it appears on the surface has consisted of the distribution of propaganda leaflets to the personnel, usually by hand while the men are ashore. The material in these leaflets is designed to cause discontent among the Navy personnel as well as calling for them to desert under certain conditions.

It is first desired by the Communists in the armed force propaganda to sufficiently subvert the personnel so that they will refuse to act against workmen when called out in connection with labor disturbances, strikes, and riots.

A typical leaflet which was distributed to some of the personnel of the fleet while recently at New York City is quoted:

COMRADES, SAILORS!

GREETINGS: After a long journey you are now in New York. All the papers owned by multimillionaire bosses; all the grafting politicians are engaging in bally-hoo about "our dear fleet." These same newspapers, these same politicians, these same Wall Street bankers have not a word to say about the conditions under which you are forced to live while in the Navy.

You are fed rotten food. You are drilled long hours and besides made to do all the dirtiest work. You are not allowed sufficient passes, and in colonial lands are often kept in restricted areas. Your officers bulldoze you at every occasion, and for the slightest thing you are put in the brig. We call upon you to fight for the following demands:

"1. Minimum pay to be raised to \$50 per month. All specialist ratings to be increased 25 per cent.

"2. Maximum period of duty to be eight hours daily including guard duty.

"3. Service men to have the right to resign from the service at any time after enlistment.

"4. Daily ration allowance to be increased 50 per cent.

"5. Enlisted personnel to have the right to elect their officers.

"6. Enlisted personnel to have the same allowance of leave as the officers. No restriction of passes to men off duty. Enlisted personnel to have unrestricted right to wear civilian clothing while on pass or on leave.

"7. Unrestricted right to organize into unions."

Nine chances out of ten, you were forced to join the Navy because of unemployment and rotten conditions where you worked. Because you were unemployed, you listened to the lies of the recruiting sergeant that "the Navy will teach you a trade," "WILL MAKE YOU MEN," etc., and you joined up. At the present time there are over 7,000,000 unemployed in the United States. On March 6, over 1,250,000 workers participated in huge unemployment demonstrations throughout the country. THEY DEMANDED THAT THE BOSSES' GOVERNMENT OF MILLION-

AIRES, HOOVER, MELLON, & Co., EITHER GIVE THEM WORK OR GIVE THEM WAGES TO EXIST ON. THEY DEMANDED THAT THE MONEY FOR THE WAGES BE SECURED BY TAXING THE RICH MILLIONAIRES WHO HAVE TENS OF MILLIONS OF DOLLARS PILED AWAY WHICH THEY STOLE FROM THE SWEAT AND BLOOD OF THE WORKERS. THEY DEMANDED THAT YOU AND ALL SERVICE MEN GET IMPROVED CONDITIONS.

Here in New York City alone over 110,000 workers demonstrated in Union Square. The police cossacks of Grover Whalen, corrupt Tammany politician, brutally attacked the demonstration. The workers' demands for work or wages to keep them from starving, were met with clubs, tear gas, and slugging. HUNDREDS OF ARRESTS WERE MADE AND THE COMMITTEE OF FIVE CHOSEN BY THE WORKERS TO PRESENT THEIR DEMANDS TO THE CITY ADMINISTRATION WERE SENTENCED TO THREE YEARS IMPRISONMENT. COMRADES, SAILORS! DEMAND THE IMMEDIATE RELEASE OF ALL WORKING-CLASS PRISONERS. DEMAND THAT THE CAPITALIST GOVERNMENT GIVE THE UNEMPLOYED MILLIONS EITHER WORK OR WAGES.

FIGHT FOR YOUR DEMANDS.

AT PRESENT THE FIERCEST RIVALRY IS GOING ON BETWEEN THE BOSSES OF UNITED STATES AND GREAT BRITAIN FOR THE MARKETS OF CHINA, SOUTH AMERICA, AFRICA, and other parts of the world. You yourselves see the preparation for war being made daily in the Navy. The London fake disarmament conference showed this rivalry up clearly. SOON THE RIVALRY WILL BREAK OUT INTO WAR. You and millions more of us workers will be called upon to murder workers of other countries and to be murdered ourselves for the benefit of the bosses of the United States. Again, as in the last World War, the bankers and the politicians will make rah! rah! speeches that "we are fighting for democracy," "for God and country." Though they stay from the fight they will "cheer" us as they send us to death for their profits. COMRADES, SAILORS! FIGHT AGAINST IMPERIALIST WARS! Your interest together with the workers is to make war against the bosses or their agents, the officers. Unite with the workers and service men of other countries against all bosses and bosses' wars.

While preparing for war amongst themselves, the bosses of the United States and of all other capitalist countries are planning to make war against Soviet Russia, where the workers and farmers rule. In Soviet Russia the workers enjoy a 7-hour day; have two weeks vacation with pay; are successfully building a new society. Officers and privates are on an equal footing in the Red Army and Navy; eat the same food; sleep in the same place; have the same privileges. The Workers and Farmers Government gives the service men each year a regular vacation with pay. SOVIET RUSSIA INSPIRES ALL WORKERS, SOLDIERS, AND SAILORS THROUGHOUT THE WORLD, and for this reason the greedy bosses of the United States and other countries want to overthrow the Workers Government of Soviet Russia.

COMRADES SAILORS! DEFEND THE WORKERS SOVIET UNION (Soviet Russian) against attacks of the BOSSES! IF SENT TO WAR ON SOVIET RUSSIA, JOIN THE RED ARMY AND NAVY OF THE WORKERS REPUBLIC AND DEFEND IT AGAINST ALL ATTACKS OF GREEDY BOSSES AND THEIR OFFICERS.

COMRADES SAILORS! When the bosses Government of the United States sends you to shoot down workers in China, South America, Philippines, Haiti, and other colonial lands; toilers who are revolting

against unbearable conditions; toilers oppressed by Wall Street bankers; we call upon you to side with these colonial workers—our common class brothers, against our common enemy—the boss class! LONG LIVE THE UNBREAKABLE UNITY OF THE WORKERS IN UNIFORM AND THE WORKERS IN THE FACTORIES! FORWARD TO STRUGGLE AGAINST CAPITALISM WITH ITS MISERY, HUNGER AND WARS, AND TO THE ESTABLISHMENT OF WORKERS AND FARMERS GOVERNMENTS THROUGHOUT THE WORLD!

COMMUNIST PARTY, U. S. A., DISTRICT 2,
YOUNG COMMUNIST LEAGUE, U. S. A., DISTRICT 2,
26 Union Square, New York, N. Y.

Write about your conditions in the Navy to: "The Daily Worker," a daily working-class paper and to "The Young Worker," a weekly paper for young workers and service men. The workers are interested in reading about the conditions of our class brothers in uniform. No names will be printed for obvious reasons. Address: 26 Union Square, N. Y.

APPLICATION BLANK

COMMUNIST PARTY OF THE U. S. A.,
YOUNG COMMUNIST LEAGUE,
26-28 Union Square, New York City.

I wish to join the Communist Party, Young Communist League.

Name----- Age-----

Address-----

While it is not believed likely that Navy personnel will prove susceptible to Communist doctrines under present conditions, the presence of even a few enlisted Communists is a danger, due to possibility of sabotage in case of war or other state of emergency.

TRAINING OF COMMUNISTS

A new recruit to Communism having been gained, he is accepted as a party member upon paying the initiation fee of \$1 and with the understanding that he agrees to defend the Soviet Union.

He becomes part of the organization and is assigned to definite duties. He must attend the meetings of his section or nucleus and report the progress of his assigned work. He is taught the principles and doctrines of Communism. He is subject to strict party discipline and if he fails to carry out the tasks assigned to him he is reported to the control commission of his subdistrict or district organization,

The children of Communists are sent to Communist schools where they are taught the doctrines of Lenin, Marx, and other radicals upon which the principles of Communism were founded. They are taught how to prepare for the coming "class struggle." They become

atheists. The child joins the "Young Pioneers." He may be sent to a Communist summer camp and when he grows older he joins the "Young Communist League" and perhaps the "Sports Union." As a member of the Young Communist League he may be sent to enlist in one of the branches of the Government's armed forces, there to become a "cell" or member of a "nucleus," or he may be assigned as a member of the defense guards organized to protect Communist speakers against attack and arrest by police.

If he is an apt pupil he may be sent to a Russian Communist University for postgraduate training in Communism.

Eventually as he grows older he may become one of the paid party office holders and play a more important part in the Communist effort to set up a Soviet Government in the United States.

CONCLUSION

All efforts of the Communists are directed solely toward one end—the establishment of a workers Soviet form of government in the United States.

The policy in pursuance of this aim is to cause strikes and discontent and to stir up labor troubles and class hatred wherever possible. All, of course, with the end in view that, when the mass of labor becomes sufficiently discontented, they will rise under the leadership of the Communists and seize the control of the Government in their own hands.

The true Communist is a fanatic. He believes thoroughly and completely in the principles of Communism. He is not a patriot—America means nothing to him, even though he may be an American citizen. Any act is justified, providing it assists toward the accomplishment of the end in view.

If the Communists ever are able to gain control there will be no liberty according to the American conception of liberty. To the contrary there will be an intolerable dictatorship of Communist fanatics whose policies in turn will be dictated by the Communist leaders in Russia. The United States will become a unit of the Union of Socialist Soviet Republics.

Reports clearly indicate that the Communists are gaining strength. In the 1924 election the Communist ticket polled 36,000 votes; in 1928, 48,000 votes. Since 1928 the economic depression in the United States has resulted in considerable unemployment and in an estimated gain of 25 per cent in actual Communist Party members.

Ten per cent of Communists are members of shop nuclei and do not vote for obvious reasons. Fifty per cent are aliens and can not vote, while an additional 5 per cent are negroes.

Assuming that in the 1928 polls all Communists qualified to vote except those attached to nuclei actually voted, a figure of approximately 120,000 is arrived at as being a conservative estimate of actual members of the Communist Party.

This figure is admittedly a very rough estimate. Estimates made by various organizations engaged more or less thoroughly in radical investigation have placed the figure as high as from 1,500,000 to 3,000,000.

It is further estimated that due to the care exercised in admitting candidates to party membership, the strict discipline which results in many party members being dropped for one reason or another, but who are still at heart Communists, and to the many strong sympathizers who for various reasons have not signed up as party members, there are some 200,000 individuals who would flock to the Communist colors in the event of conditions becoming sufficiently serious.

While this figure of 120,000 Communists does not appear to be strong enough to cause undue alarm, 120,000 active fanatics can and are to-day causing a not inconsiderable amount of industrial trouble. In time of war, the possibility of widespread sabotage by Communists not only in civil industrial plants, but in navy yards and even on board ship should not be disregarded.

Due to the present economic depression in the United States, conditions are favorable for the rapid spread of Communism and unless strong action is taken by Federal and State authorities to suppress the activities of the Communists a considerable increase in Communism is to be expected with more and more labor unrest and disorders and the greater development of class feeling and hatred, especially between negroes and whites.

While the number of Communists among the personnel employed in our navy yards is not known, due to the prescribed secrecy of the nuclei organization, this number is at present believed to be low. However, it is known that the penetrative efforts in this direction are continuing.



SUBMARINE NOTES

GREAT BRITAIN

Organization and administration of submarine forces.—There is no separate division or department of the Admiralty to deal with submarines. Questions relating to submarines are dealt with by the various departments and divisions concerned, according to the nature of the matter, as with all other classes of vessels. There is, however, a separate submarine section in the department of the Director of Naval Equipment which acts as a coordinating authority where matters of material are concerned.

Rear Admiral (S), whose headquarters are at Fort Blockhouse, Gosport, is made responsible for the general administration of the submarine service. His duties include: (a) Adviser to the Admiralty on all matters concerning submarines, including the requirements for new design. (b) Responsibility for the provision and training of personnel. He communicates direct with the various Admiralty departments concerned, and keeps the necessary records and rosters of all officers and men serving in submarines. (c) Command of the submarine schools and responsibility for the efficiency of the training at these schools, and for the production of the various manual of instruction. (d) Command of the three submarine flotillas stationed in home waters. (e) Advisor to the commanders in chief on foreign stations on general questions of submarine development, material, and personnel.

There are five seagoing submarine flotillas, three of which are stationed in home waters, and one each on the Mediterranean and China stations. There is a captain (S) or commander (S) in charge of each flotilla.

The three home flotillas are directly under the orders of Rear Admiral (S). The direct responsibility for the administration and efficiency of the foreign flotillas on the stations rests with the commanders in chief concerned.

By way of comparison it is of interest to observe that, in the Japanese Navy, submarines are administered, in respect to matériel by a separate section of the navy technical department, the latter of which combines in general the functions now performed by the

Engineering, Ordnance, and Construction and Repair Bureaus of our Navy. Thus the submarine section comprises one of the five separate sections of the navy technical department. It is understood that, at present, no provision is made for a separate submarine section in the organization of the French and Italian Navy Departments.



JAPAN

Aircraft employed in submarine attack doctrine.—Recent reports indicate the employment of aircraft in conjunction with torpedo and tactical training of Japanese submarine crews, considerable stress being placed upon the development of concentrated submarine attacks, aided by aircraft, against a formation of heavy ships. At a recent test of this attack doctrine, by the second submarine squadron, the following procedure was used: A plane sent out from the tender locates the target and signals the torpedo-firing data to the seven submarines which formed line (distance between boats, 1,650 feet), submerged, and advanced to the attack in this formation. The torpedoes were fired simultaneously either on signal from the plane or from the squadron flagship. The torpedoes were fired at long range. Results of this practice were officially pronounced excellent, and all officers who observed or participated in the practice are reported as enthusiastic over this new attack doctrine.

Special submarine inspection board.—The Japanese Navy has a special submarine inspection board which conducts the official acceptance trials of all submarines and also has charge of other submarine experiments and tests.

This board comes under the immediate jurisdiction of the commandant of the Kure Naval Station, who appoints its members. In purely technical matters the senior member of this board shares authority with the chief of the naval technical department. The senior member reports the results of tests and the board's opinions and recommendations to the commandant of Kure Naval Station, who in turn transmits the report to the Minister of the Navy. It is policy for the board to keep in intimate touch with the engineering bureau and the submarine division of the Navy Department and also with the submarine school.

FRANCE

Submarine complements.—The regular complements of the four classes of submarines in the French Navy are as follows:

1,500-ton type; 3 line officers, 1 engineer officer, 57 men.

1,150-ton type; 3 line officers, 1 engineer officer, 50 men.

750-ton type; 2 line officers, 1 engineer officer, 37 men.

600-ton type; 2 line officers, 1 engineer officer, 40 men.

All submarines are assigned to a regular operating base. In addition to the regular complements, known as the cruising complements, each submarine has a supplementary crew that remains at its base and is available to the commanding officer for repair and overhaul work. From this supplementary crew are taken the hands necessary to fill temporary vacancies in the cruising complement due to leave, illness, etc. When a submarine is at its base the supplementary crew is directly under the orders of the commanding officer of the ship. When the ship is away from the base the supplementary crew of that ship is under the authority of the squadron commander of that squadron to which the ship is attached.

There is in addition a supplementary complement for each squadron available for assisting any submarine in need of such aid.

Supplementary crews are composed usually of machinists, electricians, and torpedomen.

Torpedoes.—Each submarine is supplied with two complete groups of war torpedoes, each group comprising the maximum number of torpedoes that can be carried in the tubes and torpedo racks. One group, the service group, is required to be complete and ready for immediate service, and is composed of torpedoes that have been proved either on proving runs or competitive firings within the last year and that show no abnormal conditions after postfiring overhaul. The torpedoes of the second group, replacement group, are usually under overhaul. The number of torpedoes undergoing overhaul is kept as low as possible. The proper functioning of the war torpedoes is proved by test before a trial board prior to delivery to the submarine, the captain of the ship being a member of this board. The war torpedoes of each submarine are stored at the base in a dry state, the submarine's crew, assisted by the base personnel, being charged with their care and upkeep.

Each submarine is also supplied with two exercise torpedoes of an old model. Eventually the exercise torpedoes will be of smaller caliber than the war torpedoes, and will be fired in a sort of sub-caliber tube (*reducteurs de calibre*).

Mines.—The naval coast defense forces (which include the submarines not attached to the fleet) of each port stow in their maga-

zines the mines for the submarine mine layers attached to the port. Upon receipt from the factory from 10 to 25 per cent of the mines are tested by actual launching, those to be tested being selected at random by the captain of the submarine. The coast defense forces are charged with care and upkeep of the mines. Each mine is inspected at least once each year. Each submarine mine layer is required actually to lay a complete load of war mines once each year.

Each submarine mine layer carries a stock of exercise mines and periodic mine laying practice is carried out.

Gun practice.—Training of gun crews is carried out at the base with dotter drill, subcaliber, etc. At sea actual firing conditions are simulated as far as practicable. Upon coming to the surface the submarine is required to open fire upon the target at the earliest practicable moment.

Submarine sound school.—A school for listeners is located at Cherbourg.

Engines.—Double-acting Diesel engines for the French Navy are being studied by the Sulzer company. None of this type is considered sufficiently advanced for present installation in submarines.

French submarines cross Atlantic.—An epochal event has recently occurred in the French Navy, with the trans-Atlantic cruise of the two submarines, *Vengeur* and *Redoutable*, for a visit to various ports in the West Indies. They sailed from Brest on March 24, 1930, touching at Casablanca, Dakar, and the Cape Verde Islands. They arrived at Fort de France, Martinique, on April 27. These boats were built at Cherbourg, commissioned in 1928, and have the following characteristics: Displacement 1,535/2,037 tons; length 302 feet, beam 26½ feet; two sets of Sulzer Diesel engines, 5,000 combined horsepower, surface speed 18 knots, submerged, 10 knots; ten 21.7-inch torpedo tubes, one 3.9-inch antiaircraft gun; complement, 4 officers and 59 men.



ITALY

Deep submergence test.—In April, 1930, submarine *Ammiraglio De Genéys*, submerged to a depth of 400 feet, off Spezia. At this depth all apparatus was operated and worked well. There was no distortion of the hull. This vessel is of the 380/1,050-ton type, launched November, 1928, equipped with six 21-inch torpedo tubes (4 forward, 2 aft), and one 4-inch gun.

Italian submarines make Atlantic cruise.—In accordance with present Italian naval policy of sending new boats in pairs for cruises

outside of the Mediterranean, two submarines, *Domenico Millelire* and *Enrico Toti*, have just completed (May, 1930), a cruise into the Atlantic. The itinerary of this cruise (total distance 7,000 miles) just completed, was as follows: Spezia to Dakar (16 days without stop), Tenerife, Madeira, Lisbon, Ceuta, Mahon, Spezia. It is understood the *Millelire* made one 36-hour submersion test, using air purifier and oxygen apparatus, during this cruise. These two boats are of the *Balilla* class, with following characteristics: Displacement, 1,390/1,884 tons; length, 282 feet, beam, 24½ feet; 2 sets Fiat Diesel engines, 4,900 combined horsepower, surface speed 18.5 knots, 9.5 knots submerged; six 21-inch torpedo tubes, one 4.7-inch antiaircraft gun, also fitted for laying mines. Three other submarines, *Balilla*, *Tito Esperi*, and *Vittor Pissani* made a cruise into the Atlantic, stopping at Las Palmas, Canary Islands, in February, 1930.



CHILE

The three new Chilean English-built submarines, the *Capitan O'Brien*, *Capitan Thompson*, and *Almirante Simpson*, which visited Balboa in February, 1930, en route from England to Chile, are similar to the British "O" class, 1,400/1,800 tons displacement. The boats made the Atlantic passage via the Canary Islands and Martinique. The longest leg of the trip was the 13 days on the passage from the Canaries to Martinique. A retired British naval commander, with a war record as commander of British submarines of various types, accompanied the boats as the builder's representative, to remain with them for the guarantee period of one year by the builders. Information on the details of construction and manner of operations were freely given.

The major casualties suffered en route from England to Panama were given as one engine cylinder casualty on one of the three boats, and a battery explosion with only small resultant damage on another. It was stated that the cylinder was not renewed, or repairs attempted at sea, and that the engine was run for the remainder of the voyage with the defective cylinder cut out. The battery explosion followed the starting of an idle blower upon the commencement of a battery charge. The electrician starting the blower had found a piece of clothing in the starting panel, and in throwing it clear caused it to lodge over a battery ventilation intake screen. There were no injuries to personnel, and only slight material damage as a result of this explosion.

The sea qualities of the boats are reported to be excellent in all kinds of weather. A heavy southeaster in the Bay of Biscay gave them no great discomfort.

Officers and crew.—The *Capitan O'Brien*, the first of the three boats to be commissioned, was reported to have a picked crew of Chilean H-boat trained men, and the other two boats to have crews with only a nucleus of trained men. The officers, including the commodore of the flotilla, commanding officers, and a high percentage of all other officers have had H-boat service of a number of years. The crews appeared to be well trained and to know the departments in which they were serving. The Chilean submarine sailor is efficient, particularly in the engineering force.

The officers seemed to have a good general knowledge of submarines and were intimate with the details of the new boats, having seen them built from the keel up, and having a deep interest and enthusiasm for the submarine service. They, however, seemed to feel that it was a big jump from their H-boat class to the new type. The boats in size appeared to be only slightly smaller than our V-1 to V-3 type.

Deck and superstructure.—The outstanding feature of their deck and superstructure is the length of their conning tower shears and fairwater, which run about one third the length of the deck, having mounted a Vickers 4.7-inch gun in a turret mount on the shears, and the bridge of great length. The superstructure decking has galvanized plating without wood, and the decking outboard of the conning tower and conning tower fairwater is only about 1 foot on either side, making the passage from the forward superstructure deck to the after superstructure deck a difficult one. The superstructure at the bow recedes aft and a new clearing angle iron forms a continuation aft on the same angle as the bow. This angle iron is attached to the clearing lines which extend abaft the bridge.

Hydroplanes.—The boats are fitted with side hydroplanes which are worked out to full horizontal position and left in this position throughout submerged runs. They also have submerged bow planes.

Hatches.—Their torpedo-room and motor-room hatches are slightly angled for torpedo loading and the hatches are larger than our S-boat type and very accessible. The hatches are of the spider quick-closing type, as are all water-tight doors. There is a special gun access hatch located directly below the gun.

Torpedoes and torpedo tubes.—The torpedo tubes are located six in the bow, and two in the stern. The two stern tubes are located in the horizontal plane. The bow tubes are located in the forward compartment, vertically arranged in groups of three to each side. There are no hull fairing shutters. Quick-opening inboard vents are installed. Two lower tubes are loaded by means of hydraulic telemotors and car, remaining tubes by trolley. Tubes are separated

from remainder of torpedo room by a bulkhead about 4 feet aft of the tubes. Tubes are loaded through doors in this bulkhead. Lower tubes are below the level of working deck. The Chileans seemed impressed by the speed with which loading torpedoes in the tubes could be accomplished. No torpedoes were seen but were reported to be 21-inch Whitehead, 45 knot, long range. Stowage space for torpedoes in torpedo room appeared to accomodate six torpedoes. No torpedoes or war heads were on board. The after torpedo tubes are loaded by means of a hydraulic telemotor and car. There is stowage space aft for two torpedoes.

Storage batteries.—The storage battery consists of 360 cells lead acid, unit assembly type. They appear to be similar to batteries of submarines of our "O" class. The battery is divided into three sections of 120 cells each. Half of the center battery can be connected to the forward or after section. Each section is separately ventilated by two blowers, and each has its own outboard ventilation duct. The air used for ventilation is cooled by the CO₂ ice machine. Officers reported that a battery temperature of 80° F. is maintained at 1.280 specific gravity. Cooling apparatus will cool battery 23° after a charge. Temperature has never been over 100° F. in the Tropics. The battery jar material was reported to be of a fire-resisting composition. It is salmon red in color. The capacity of the battery allows a speed of 8 knots for three hours. No battery ventilation pressure indicators except ordinary wind vanes were provided.

Main engines.—Propelling plant consist of two Diesel engines manufactured by Vickers (Ltd.) direct connected through clutches to propellers. They are very similar to the M. A. N. engines; have six cylinders; are 4-cycle air injection (single), rated 1,500 horsepower at 400 revolutions per minute, air starting, reversible with sliding cam shaft similar to M. A. N., type circulating water pump attached, water contact liners, 4-stage engine compressor, capacity 1,800 pounds per square inch. Main clutch is of the cone type in bath of oil, hydraulically operated. Exhausts from muffler discharges well below the surface of the water. Critical speeds of the engines are 270 to 325 revolutions per minute. Ten knots is reported to be 253 revolution per minute.

Motors.—There are two main motors of 660 horsepower each. There is one auxiliary motor on each shaft. Main motors are of the single armature type. The auxiliary motor is thrown in by a clutch operating a worm drive, and is used for slow speeds submerged; as slow as 50 revolutions per minute is obtained by this motor, about three-fourths of 1 knot for 50 hours. The auxiliary motor clutch is so designed that when shifting to main motors it is automatically thrown out and no time lost in increasing the speed of the boat submerged.

Periscopes.—The boats have two periscopes, one called an observation and the other an approach periscope. The diameter of the approach periscope where it extends above the periscope shears when raised is only about 2 inches, while the observation periscope at this point is about 5 inches. The field of the approach periscope does not seem to have been reduced by the narrowing of the approach periscope's upper diameter. Both periscopes are of the Barr & Stroud manufacture and said to be a copy from German periscopes, and to contain lenses of German manufacture. They are particularly clear and easily handled. The altiscope feature permits of an elevation of from 10° depression to 80° elevation. The magnification is about 1.5 power and 6 power. The stereopticon arrangement of range taking is installed and can be used in a horizontal or vertical plane. It is simple and takes no experienced or trained eye to cause the two objects to blend with one another. Where the range of an object is taken using a target's length, the angle on the bow may be set to correct for the target being foreshortened. Ranges can be read correctly at any instant from the periscope. A time-keeper to replace a stop watch for use on approaches is mounted in the periscope base.

Living quarters.—The boats each carry a crew of 50 men and 5 officers. The officer's wardroom is separated from the commanding officer's stateroom. Officer's sleeping quarters are in the wardroom, and are very comfortable and spacious. There is a separate officer's galley, warrant officer's galley, and crew's galley. There are two electric cooking ranges installed and several fireless cookers; also an oil galley the stack of which leads outboard at the bridge. The oil galley is used at all times in the surface condition. Each boat is equipped with two 5-ton ice machines of the CO₂ type.

For additional notes on these vessels see O. N. I. Bulletin, August, 1929.



THE NETHERLANDS

The Dutch Navy is divided into two services: The home force for the defense of the Dutch coast, and the colonial force for the protection of her indispensable East Indian colonies.

Holland has been surrounded by great naval powers which for generations have been interested in preserving her neutrality. In home waters, therefore, Holland has, in recent times, assumed that she is secure from aggression of powerful European neighbors and that, in any event, her budget prevents her from building a navy which would be a factor in inter-European naval warfare. The Dutch people, like those of other nations, show great reluctance to give money for naval defense in peace times.

The home force is now merely a training division for the colonial force. Moreover, more interest is evidenced by the Dutch people in the colonial navy, not only because the Dutch East Indies pay directly one-half of its expense, but also because they realize the importance economically of these colonies, with their 50,000,000 natives.

Holland, therefore, maintains an independent navy of up-to-date small vessels, completely self-supported in the Indies by the arsenal at Soerabaya. The mission of this force is to protect her trade routes in eastern waters, to protect interisland transport service, and to discourage aggression by Asiatic powers.

The effect of this complete division of Dutch naval activity into home and colonial service is seen in the submarine types as follows:

(1) The pre-war submarines kept in Holland are small coast defense boats. All of them are obsolete. They are maintained in commission to be used only for coast defense or as training units for the Indian service.

(2) The pre-war submarine built for the colonies were larger, faster, and had a longer radii of action than those built for home service.

(3) The *O-9* to *O-14* were projected after the war and, although designated as boats for home service, they have equal cruising radius, are almost as large, and have almost as great speed as the latest *K* boats for colonial service.

It was stated by several Dutch officers that the postwar *O* boats were designed to be used in the East Indies as *K* boats in the event of trouble there, and the designations "*O*" and "*K*" for the modern boats denotes service only, and connotes little difference in types except slightly greater submergence, small increase in speed, and better habitability. (Air cooling plant for tropical service.)

The Dutch naval base Den Helder, in Holland, where are situated the naval academy, navy yard or arsenal, submarine base, training station, and other activities, was recently inspected.

The submarine base consists of permanent barracks for enlisted men, an administration building which also houses the officers mess room, a battery overhaul shed, and miscellaneous minor repair shops. All major overhaul work is done at the navy yard near by.

The battery overhaul shed contained the entire Exide battery of the *O-8* (ex-British *H-6*), which was being charged. Adjacent to this battery on charge was a Tudor battery with plates of German manufacture. The following batteries were said to be used by the Dutch Navy: Swedish (Tudor), English, German, and American. The new boats have Tudor batteries and many of the plates are supplied by a German firm said to be Hager

An engine overhaul shed and small machine shop is used for minor overhaul work. The close proximity of a navy yard makes it unnecessary for the base to have elaborate repair facilities.

In general the material condition of the submarine base was excellent, the quarters for officers and men appeared to be better furnished, in better repair, and more presentable than those at New London. The buildings were substantial, well built of brick, and inside the finishing was excellent. The officers mess room had good furniture, leather upholstery, good pictures on the wall, and rugs on the floor. The same can be said of the administration offices and the bachelor officer quarters. The food served at the officers mess was as good as that served at New London.

The commander of the submarine base is also in charge of all submarines operating in home waters. He is a captain, and was one of the original Dutch submarine officers.

The submarines under him are divided as follows:

(1) Operating divisions consisting of the new *O-9* to *O-11* and the *O-12* to *O-15* when completed.

(2) Reserve division consisting of the old *O* boats, namely *O-2* to *O-8*.

The former boats have their regular complements of 3 officers and 29 men, who live at the base when not operating.

The older boats are in a reserve status, having but 4 or 5 men regularly attached, one in each department. About once per month the officer in charge of the reserve division comes to each of these old boats with 10 or 15 men, comprising the mobile repair crew of these old boats, and takes the boat out for diving operations. Once a year the boat is given a standard yard overhaul.

Only one officer is attached to the upkeep and reserve division. The permanent boat keepers and the reserve or overhaul crew are all under the command of this officer, who has the rank of lieutenant. The maintenance of these old submarines appeared to be very similar to the system used for the upkeep of our reserve destroyers at San Diego in 1920. In view of their age and of the bad climate at Den Helder, these old submarines were in remarkably good condition.

In general the officers attached to the submarine service appeared to be excellent men. They had all done one or more tours of duty in the Dutch East Indies. They were proud of the fact that the Dutch Navy, with the exception of the one battery explosion and the sinking of one boat at the dock without fatality, has never had a disaster.



Carden
L. A. W.

EXCHANGE OF NOTES ON LONDON NAVAL TREATY

On June 6, 1930, the State Department released the following exchange of notes completed between the Government of the United States and the Governments of Great Britain and Japan relative to the interpretation of article 19 of the London naval treaty of 1930:

AMERICAN NOTE

"It is the understanding of the Government of the United States that the word category in article 19 of the London naval treaty of 1930 means category or subcategory. The Government of the United States declares that it interprets the treaty to mean that vessels becoming overage in either subcategory A or subcategory B of the cruiser categories (art. 16) shall be replaceable only in that subcategory.

"The American Government will be most happy to have the confirmation of this understanding from his Majesty's Government."

JAPANESE GOVERNMENT'S REPLY

"I have the honor to acknowledge receipt of your note dated May 21, 1930, relative to the interpretation of the word category appearing in article 19 of the London naval treaty of 1930.

"The Imperial Government understands the word category appearing in article 19 of the above-mentioned treaty to mean 'category' or 'subcategory'; thus it interprets this treaty in the sense that ships belonging to either subcategory (a) or subcategory (b) of the cruiser category (art. 16) which shall become overage may be replaced only within that subcategory."

BRITISH GOVERNMENT'S REPLY

"Your excellency, in the note No. 611 which your excellency was so good as to address to me on June 4 you stated that it was the understanding of the Government of the United States that the word 'category' in article 19 of the London naval treaty, 1930, meant category or subcategory. Your excellency added that the Government of the United States declare that it interpreted the treaty to mean that vessels becoming overage of either subcategory

(a) of subcategory (b) of the cruiser categories (art. 16) shall be replaceable only in that subcategory.

"2. His Majesty's Government in the United Kingdom note the above understanding and interpretation of the London naval treaty of 1930 and concur therein. His Majesty's Government in the United Kingdom do so without prejudice to article 20A of that treaty under which they understand that the tonnage to be scrapped and replaced in the case of the British Commonwealth of Nations by the 91,000 tons of 6-inch cruiser tonnage which may be completed before December 31, 1936, comprises partly 6-inch gun cruiser tonnage and partly cruiser tonnage of the 7.5-inch gun *Effingham* class."



Carried
A. B. V

FOREIGN REACTION TO LONDON NAVAL TREATY

GREAT BRITAIN

In a speech in the House of Commons, on May 15, 1930, Prime Minister Ramsay MacDonald opened the debate on the London naval treaty.

CONSERVATIVE

The Conservative attack upon the treaty was led by Mr. Winston Churchill, which, in summary, was as follows:

1. That the agreement of London was not the natural successor or child of the Washington agreement of 1921, but on the contrary differed fundamentally from it. [Cheers.]

2. That it was not a treaty of parity at all in the sense that Great Britain and the United States should be equal powers upon the sea; but that, on the contrary, it was the formal acceptance by Great Britain of a definitely inferior sea power. [Cheers.]

3. That the London agreement contained within itself subsidiary provisions which would have the effect of ensuring that that inferiority was attained before the treaty came to be revised in 1936. [Cheers.]

During the course of his attack Mr. Churchill caused a considerable stir and drew the ire of a large body of the House by quoting the following passage from the instructions which were sent (by the Lloyd George Government) to Lord Balfour, the head of the British delegation at the Washington Conference:

We welcome your decision to press for the total abolition of submarines. Even if you can obtain this, we wish to be consulted before a final decision is taken upon the limited scales of construction in small craft permitted to the various signatories. The position of Britain, with her world-wide possessions and food supplies on the one hand, clearly requires an entirely different standard from that acceptable by self-contained nations. We apprehend, however, that there is very little chance of the abolition of submarines being agreed upon, and in this event we must insist at all costs upon absolute freedom in regard to the character and number of all vessels under, say, 10,000 tons. We can not, in the face of French freedom to construct a great submarine fleet, to say nothing of the submarine and cruiser construction of other powers, enter into any agreement fettering our liberty to build whatever numbers and classes of cruisers and anti-submarine craft we may consider necessary to the maintenance of national and imperial life. We feel sure, from our knowledge of your outlook on the whole problem, that you will share this view to the full. Even at the cost of a complete rupture, we feel certain you will not agree to any restriction in this sphere without previous consultation with the cabinet.

The Morning Post, May 3, 1930, records part of a recent speech by Lord Bridgeman, part of which was devoted to criticism of the London naval treaty. Lord Bridgeman "very much regrets" the agreement, because it represents little economy, and because it "gives away the most important part of our fleet, and obtains practically nothing in return." The only "one new thing" and "only satisfactory position in this agreement" is the 5-power battleship agreement. In regard to cruisers, he considered that Great Britain's claims for a large number were overwhelming, as compared with the claims of other countries. In regard to Great Britain's reduction from 70 to 50 cruisers, and the "usual" Government answer to parliamentary questions, that "the Government took the responsibility," Lord Bridgeman considers that this could only mean that the Government "had acted against the advice of their sea lords." He considers further that if Great Britain is to make this "enormous surrender," against the best naval expert advice, she "surely might have gotten something out of some of the other countries equivalent to the surrender we are making. [Cheers.]" He considered that the "safeguarding clause" sounded very well on the face of it, "but was not satisfactory in practice, should a power outside of the treaty build extensively, or, should there be an invention of a new type of ship.

LIBERAL

In the treaty debate in the House of Commons, Mr. Lloyd George congratulated the Government on their partial success. The greatest achievement of the London Conference was the fact that we had arrived at an understanding with the United States and with Japan. [Hear, hear.] That would have a profound effect on international history. The agreement so far as the deep-sea situation was concerned was satisfactory, but it was not satisfactory so far as the narrow seas were concerned, and in that matter there was an element of grave peril. He hoped the Prime Minister would not allow that situation to remain as it was. It was of vital importance to regularize the position with regard to the menace from submarines in the narrow seas.

He had been taken aback early in the debate that Mr. Churchill should have departed from precedent by quoting secret instructions sent by the Government at home to their emissary at the Washington Conference. That was a very grave thing. There were occasions when documents of that kind ought to be published, but only after full consultation with the members of the Government at the time being. If any member of a former cabinet took upon himself to

publish secret instructions of that kind on his own responsibility, a great deal of mischief might follow. The document in question was sent by Lord Curzon to Mr. Balfour.

INDEPENDENT

A lengthy editorial in the *Nation & Athenæum* (Independent with Liberal tendencies) May 24, 1930, thus pictures the reactionaries in the three powers of the naval treaty, and the writer sees a clear-cut issue between those who believe in security by peace, and those who believe in security by armaments. Great Britain is declared to be left "naked to our enemies"; Japan's interests are said to have been betrayed; the United States delegation is considered as having been "outwitted at every turn by the wicked skill of the British." while Admiral Hilary Jones "has declared that the treaty leaves the United States slightly inferior to Japan in effective striking power." "If we are to believe the critics, each delegation has completely outmaneuvered the other two. We are driven to the conclusion that the treaty must be even wiser and more equitable than we had thought it."

While considering that the opponents to the treaty in Japan are fighting a losing battle, and those in the United States have covered themselves "with a contempt which goes far to nullify their capacity for future mischief," the writer views the Tory critics in Great Britain as being a little more serious in their attitude. Here he reviews in detail the reception which the London treaty was given in the House of Lords and the House of Commons, with particular reference to Mr. Churchill and Mr. Amery's statements. He sees their attack on the number of cruisers as their main criticism, and declares that if Mr. Churchill can not understand that to consider that the likelihood of attack "is as relevant to the calculation of a scale of defense as to consider "the maximum scale of attack to be anticipated," it will at least be obvious "to less subtle intellects" that "on this basis, any reduction or limitation of armament is a flat impossibility (as Mr. Churchill obviously believes)."

Regarding Great Britain's not having parity with the United States by the treaty, and the United States not having effective parity with Great Britain, as pointed out by Mr. Churchill and some Americans, respectively, the writer says that "by a careful selection of individual technical points in a very complex agreement, some sort of case can be made out for either position." Since Mr. Churchill has "often assured us" that war between the two countries "should be excluded from our calculations," his position is regarded as not being alarmed by United States naval superiority, but as being filled with terror "by the weight of a single hair"

weighing down the balance on the United States' side. "This, in Tory circles, is called realism."

Replying to Mr. Churchill's point that the 91,000-ton limit on British cruiser construction to the end of 1936 "is very wrong" because no similar restriction is put on United States and Japanese replacements under the 16-year rule, the writer gives the following figures:

"Sixteen years was adopted for cruisers laid down prior to 1920 because Great Britain desired to replace war-constructed cruisers earlier than the 20-year limit on the ground of unhealthy accommodations for crews on long cruises. This, with the scrapping of four *Vindictives*, would have given Great Britain the right to complete 153,220 tons of replacements before the end of 1936, instead of the 78,180 tons on the 20-year basis. The Admiralty agreed to 91,000 tons (apart from ships already building) because it was desired to keep the replacement rate as even as possible, and did not wish to take full advantage of the alteration in cruiser life during the 1930-1936 period.

Eight-inch gun cruisers are unaffected—none in any Navy was laid down before 1920.

No United States 6-inch gun cruiser is affected prior to 1936—the first *Omaha* class ship being completed in 1923.

Four Japanese cruisers, totaling 16,460 tons, become replaceable by 1936.

If France and Italy adhere to the agreement, none of their cruisers will be replaceable by 1936 on a 16-year life which would not have been so replaceable on a 20-year life.

Where is the betrayal of British interests?"



JAPAN

After the acceptance on April 2 by the Government of the proposed terms of the London treaty, the chief of the naval general staff, exercising his legal right, made direct appeal to the Emperor. It is reported that he protested against acceptance of the treaty on the ground that it failed to provide adequately for the national defense.

The press comment in general, and the limited quoted remarks of responsible people outside the cabinet indicate an acknowledgment that, while Japan did not obtain her demands in full at London, the result is a satisfactory and acceptable one. Some of the trend of favorable comment may be noted:

Viscount Saito, head of the Japanese delegation to the Geneva Conference, is quoted as saying * * * "it must be regarded as a real success that such compromise as the London treaty could be reached, * * * any one who says the London treaty will endanger the national defense is certainly exaggerating."

The Osaka Asahi (one of the leading dailies) says "candidly we are delighted with the agreement reached. Japan is saved an enormous amount of money and finds herself relatively safe from the threat of war."

The Tokyo Asahi (leading daily) expresses the opinion that "considered in sum total the treaty is rather good." It believes that the attitude exemplified by Admiral Kato is unreasonably stubborn in that, while the treaty may not be all that Japan desires in a strictly military way, the general staff takes too little consideration of the present economic depression and has no thorough grasp of the general situation as distinguished from purely military factors.

The Osaka Mainichi believes that "all parties to the conference should be thankful that some agreement has been reached after the failure to restrict auxiliary craft at the Washington Conference and the second complete failure at Geneva. Japan should be glad that some halt has been called. Since the treaty is effective for five years only, the concessions made to the strict 70 per cent demands may be called wise."

On the other hand there has been some strong comment against the treaty, largely in support of the strong Navy element headed by the chief of the general staff; but the actual discussion for or against the treaty in itself has been dimmed by the politico-naval controversy looming between the ministry and the general staff.

The newly elected Diet met on April 21, and was formally opened by the Emperor on April 23. In the course of Foreign Minister Baron Shidehara's speech before the Diet he stated: "Taking fully into consideration the views of the naval experts, we have finally adopted with firm conviction the decision to join in the present treaty." The Premier and Foreign Minister have also stated during interpellations that the Government (ministry) accepts responsibility for the national defense, which is well insured by the naval strength allotted to Japan.

These statements seem to have further aroused the ire of the general staff and have brought forth demands (by politicians) that the opinion and advice of the general staff were not sufficiently considered by the Government before taking action toward accepting a compromise treaty. Thus the treaty furnishes the instrument for raising an internal political issue, not directly over the treaty itself, but over the constitutional question of whether or not the

military and naval arms of the Government shall be subordinate to the civil.

For years Japan has been dominated largely by military and naval men through the general staffs, who are not under any cabinet minister but are advisors of the Emperor on matters of national defense. These military powers have been strong enough in the past to overthrow ministers that opposed them. So that the present arising issue may become a serious one for both sides, sort of a last stand fight over the principle involved, the chief of the general staff may be shorn of his prerogatives if defeated by acceptance of the treaty over his advice, or the cabinet may be forced to resign if the military-naval faction wins. How far this controversy may continue, or to what extent its ramifications may effect approval of the treaty, is uncertain. Each side bases its stand on articles of the constitution:

ARTICLE XI. The Emperor has supreme command of the army and navy.

ARTICLE XII. The Emperor determines the organization and peace standing of the army and navy.

In addition to the above there are organization regulations of the army and navy which provide for the chiefs of the general staff of each arm to enjoy the privilege of keeping in direct touch with the Throne.

The navy element interprets Article XI to mean that the Emperor, as commander in chief of the armed forces of the nation, acts through the chiefs of the army and navy general staffs to the exclusion of the cabinet which can not restrict this right in any way. In other words the general staffs maintain that they have the last word in national defense.

The supporters of the Government interpret Article XII to mean that as the Emperor customarily delegates his authority to the cabinet in peace time, he would naturally do so in the case of the size of the army and navy, hence the cabinet has the say in this instance.

In this connection the Seiyukai (opposition) Party leaders are being criticized for their stand in the matter, for espousing the cause of the military clans in order to embarrass the present Government, which stand is in fact a reversal of the Seiyukai's previous attitude on such questions.

When the naval treaty will be taken up for ratification is yet indefinite. The Government being aware of serious opposition must seek the favor of influential persons; further, the Privy Council may be expected to study the questions of national defense involved, the constitutional question in the controversy being raised between the cabinet and the general staff, as well as the attitudes of the

other signatory powers. While the press generally expects action in the early fall, it is otherwise reported that the Foreign Minister hopes for much earlier action on the treaty.

Different attitudes in various circles toward the treaty concluded at the London Naval Conference and the related questions at issue are reported by the Tokyo Nichinichi of May 1, 1930, to be as follows:

In navy circles—except Admiral Gonbei Yamamoto, who is supporting the Government because of personal reasons, the opposition is unexpectedly strong.

Naval general staff—united in opposition against the Government.

Supreme war council—a lively discussion is expected when the treaty is taken up for ratification.

Privy council—the majority of the council is against the Government.

Army—since it has common interest with the navy the question of the prerogative of the supreme command, which privilege it does not mean to yield, prevailing opinion is unfavorable toward the cabinet.

In a certain circle Admiral Takarabe (Minister of the Navy), Admiral Kator, chief of the naval general staff, and General Ugaki, Minister of War, are expected to resign.

As a result of this opposition a forecast is being made that the present cabinet will resign in the fall.

In addition to replacement building authorized by the treaty, the following plan has been proposed to provide for maintaining the standard of technique at dockyards:

(1) Encourage the construction of merchant vessels by restricting the importation of old vessels and by increasing the tax rates imposed thereon.

(2) Furnish shipbuilders with capital at low rate of interest.

(3) Open up new trade routes and increase the amount of subsidy so as to encourage the development of the shipping industry.

Numerous "best ways" to spend the money saved by the treaty have been proposed. It is generally assumed that the navy should have first call on this fund, for building the naval replacements authorized by the treaty and for strengthening the naval air force to that desired by the navy. Some analytical minds have deduced the answer, that after these items are accomplished there will be no funds remaining for others to spend, nor for the purpose of reducing taxes.

Some writers advance the idea that Japan should proceed cautiously in building replacement ships, especially those which anticipate the usual age limits assigned, both as a matter of economy and to show good faith in the interests of peace, lest another build-

ing race be started. Likewise it is advocated that America, though authorized, should refrain from building the last three of the eighteen 8-inch gun cruisers.

The general tendency of all the press may be summarized as follows:

(1) The treaty should be ratified.

(2) The extension of the holiday in battleship building is a matter to be thankful for and the navy should be opposed on the point of using the money which would have been appropriated for battleships for the air forces or other military purposes unaffected by the treaty on the ground of making up the deficiencies which Japan would sustain in signing the treaty.

(3) That, as a result of the treaty, taxes should be gradually reduced while it is in operation.

Early in June, the following officials are reported to have submitted their resignations: Admiral Kato, Chief of the General Staff; Vice Admiral Suyetsugu, Assistant Chief of the General Staff; Vice Admiral Yamanachi, Assistant Secretary of the Navy.

CURRENT ARTICLES OF PROFESSIONAL INTEREST

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England and Egypt. By Earl Winterton. (The Nineteenth Century, June, 1930.)

The Next War. By Liddell Hart. (Fortnightly Review, May, 1930.)

The Oceanic Powers. By "Augur." (Fortnightly Review, May, 1930.)

Political Parties in Japan. By G. F. Hudson. (The Nineteenth Century, June, 1930.)

Quo Vadis, Haiti? By Henry P. Fletcher. (Foreign Affairs, July, 1930.)

American Difficulties in Porto Rico. By Thomas E. Benner. (Foreign Affairs, July, 1930.)

Surprise in Naval Warfare. By Capt. Oswald Paul, German Navy. (Royal United Service Institution Journal, May, 1930.)



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